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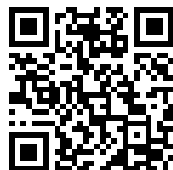
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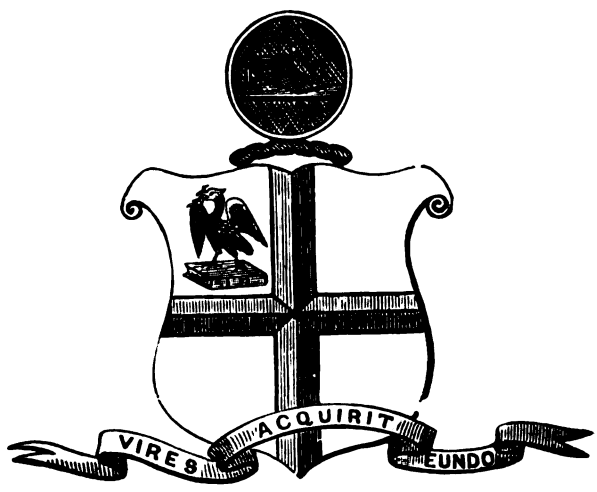
FROM

The Society.

20 Jan. 1897.



PROCEEDINGS
OF THE
LITERARY AND PHILOSOPHICAL SOCIETY
OF
LIVERPOOL,
DURING THE
EIGHTY-FIFTH SESSION, 1895-96.
No. L.



LONDON:
LONGMANS, GREEN & CO.
LIVERPOOL:
D. MARPLES & CO., LORD STREET.
—
1896.

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The Authors have revised their Papers.

The Authors alone are responsible for facts and opinions.

The Society exchanges Proceedings with other publishing bodies, through the Librarian, from whom back numbers may be obtained.

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LIST OF PRESIDENTS

FROM THE FOUNDATION OF THE SOCIETY IN 1812.

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1892-3, 93-4	PRINCIPAL RENDALL, M.A.
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CORRECTED TO SEPTEMBER, 1896.

Life Members are Marked with an Asterisk.

- Oct. 1, 1894 Alcock, Chas., Royal Insurance Co., 1 *North John Street*
- Oct. 7, 1895 Alexander, Wm., M.D., F.R.C.S., Eng., 100 *Bedford-street, South*
- Nov. 1, 1880 Allen, Francis B., 53 *Newsham-drive, Newsham Park*
- Nov. 12, 1877 Allman, G. W., *Penkett-road, Ltscard*
- Oct. 29, 1894 Anderson, D. P., 72 *Hartington-road*
- Nov. 12, 1880 Armour, Rev. Canon S. C., M.A., Merchant *Taylors' School, Crosby*
- Oct. 31, 1892 Bailey, John L., B.A., 204 *Lodge Lane*
- Nov. 13, 1876 Ball, Geo. Henry, 15 *Gambier-terrace, Hope-street*
- Feb. 19, 1894 Bateson, Harold D., M.A., *Ashleigh, Woolton*
- Oct. 1, 1894 Beavan, Jeffrey, *Broadclyst, Ullet-road*
- Dec. 10, 1866 Benas, Baron Louis, J.P., 5 *Prince's-avenue*,
EX-PRESIDENT
- Jan. 9, 1882 Benas, Phineas A., 5 *Prince's-avenue*
- Feb. 6, 1882 Birchall, Charles, *Church-street, Egremont*
- Jan. 25, 1864 Birchall, James, *Westminster-road*, EX-
PRESIDENT
- Jan. 25, 1886 Beckett, G., 31B *Hope-street*
- Oct. 15, 1894 Blochwitz, Max, 35 *Avondale-road*
- Oct. 30, 1893 Bouch, John (Bass & Co.), *Fenwick-street*
- Oct. 1, 1894 Bowes, J. L., *Streatlam Towers, Prince's-road*

- Feb. 18, 1896 Bowes, Charles Cuthbert, 64 *Stanley-street*
- Oct. 7, 1895 Bramwell, Miss, Eye & Ear Infirmary,
Myrtle-street
- Oct. 1, 1894 Brearey, Rev. R. G., *New Ferry*
- Oct. 7, 1895 Broadfoot, Rev. Bruce Macpherson, M.A.,
LL.D., 67 *Huskisson-street*
- Oct. 31, 1892 Brown, A. Theodore, *The Nunnery, St.*
Michael's Hamlet
- Oct. 18, 1869 Brown, J. Campbell, D.Sc. F.C.S., Professor
of Chemistry, *University College*
- Oct. 1, 1894 Brunner, H. Roscoe, *Druid's Cross, Wavertree*
- Nov. 14, 1892 Bulley, Arthur K., *West Kirby*
- *May 1, 1848 Byerley, Isaac, F.L.S., F.R.C.S., *Dingle-lane*
- Jan. 7, 1884 Calder, Miss Fanny, 49 *Canning-street*
- Nov. 3, 1862 Cameron, John, M.D., F.R.C.P., Physician
to the Royal Southern Hospital, 4 *Rodney-*
street
- Oct. 1, 1894 Candlin, W. J., *Beech-mount, Beech-street*
- Oct. 15, 1894 Cannings, Miss Edith, *South Liverpool School*
for Girls, Dingle-Bank
- March 4, 1872 Carter, W., M.D., B.Sc., LL.B., (Lond.),
F.R.C.P. (Lond.), 78 *Rodney-street*, Ex-
PRESIDENT
- Jan. 29, 1894 Case, R. H., B.A., 60 *Canning-street*
- Dec. 2, 1861 Chadburn, William, 15 *James-street*
- Oct. 16, 1893 Chilton, Thos., J.P., *Aigburth-drive, Sefton*
Park
- Jan. 26, 1891 Clementson, Miss Margaret E., 2 *Rice Hey-*
road, Egremont
- Oct. 18, 1869 Cook, Henry James, J. P., *Byrom-street*
- Nov. 14, 1892 Coombe, Miss L. M., *Blackburne House*
- Oct. 30, 1893 Crewe, W. Outram, *Central-buildings, North*
John-street
- Oct. 6, 1863 Crosfield, William, J.P., *Stanley-street and*
Annesley, Aigburth
- Feb. 23, 1891 Curwen, Geo., *Anglesea-terrace, Waterloo*

- Nov. 26, 1894 Dadina, Housi M., *Khetwady, Bombay, care of Mr. George Curwen, Anglesea-terrace, Waterloo*
- Nov. 12, 1883 Daly, Chas., *Grosvenor-buildings, Tithebarn-street*
- Nov. 12, 1866 Davies, E., F.C.S., F.I.C., The Laboratory, 28 *Chapel-street*, EX-PRESIDENT
- Dec. 10, 1883 Davey, Wm. J. (Messrs. Elder, Dempster & Co.), 20 *Castle-street* and *Holmleigh, Grassendale*
- Oct. 15, 1894 Dawson, Miss Minnie, 21 *Huskisson-street*
- Nov. 28, 1892 Douglas, Robt. R., 150 *Bedford-street South*
- Nov. 18, 1889 Duncan, W. A., *Woolton*
- Oct. 29, 1894 Duncanson, Thomas, Assoc.M.Inst.C.E., 16 *Deane-road, Fairfield*
- Nov. 14, 1887 Eastley, Richard, Superintendent, Meter Department, Liverpool United Gas-Light Co., 156 *Bedford-street*
- March 21, 1870 Edwards, Edward E. (Smith, Edwards & Co.), 20 *Chapel-street*
- Oct. 15, 1883 Edwards, Frederick Wilkinson, M.S.A., *Amoret House, Balliol-road, Bootle*
- Oct. 16, 1893 Edwards, Theodore, 60 *Lower Breck-road, Anfield*
- Nov. 16, 1891 Ellis, John W., M.B., F.E.S., 18 *Rodney-street*
- April 7, 1862 English, Charles J., 171 *Upper Parliament-street*, VICE-PRESIDENT
- Nov. 17, 1890 Farrie, Hugh, *Daily Post Office, Victoria-street*
- Oct. 29, 1894 Fawcett, James Henry, 39 *Ullet-road*
- Nov. 2, 1891 Fazakerley, John, 40 *Paradise-street*
- *Dec. 13, 1852 Ferguson, William, LL.D., F.L.S., F.G.S., *Kinmundy House, near Mintlaw, N.B.*
- Oct. 5, 1891 Fletcher, J. H., 17 *Tarleton-street*, and *Green Lawn, Rock Ferry*

- Jan. 7, 1895 Flinn, Miss Maude, 1 *Fitzclarenc-street*
- *Mar. 19, 1885 Foard, James Thomas, 42 *John Dalton-street*,
Manchester.
- March 19, 1894 Forbes, Henry O., LL.D., F.Z.S., *Free Public*
Museum, Liverpool
- Oct. 29, 1888 Forster, Walter P., *The Lawn, Earlston-road*,
Liscard
- Oct. 1, 1894 Fothergill, C. G., 20 *Esplanade, Waterloo*
- Oct. 7, 1895 Frazer, Alfred H., *Walker Art Gallery*
- Oct. 16, 1893 Given, J. C. M., M.D., Lond., *Mossley Hill*
- Dec. 12, 1892 Gladstone, R., Junr., B.C.L., M.A., *Vale-*
road, Woolton
- Oct. 29, 1877 Green, Robt. Frederick, 66 *Whitechapel*
- Nov. 14, 1892 Green, Wm. McQuie, 3 *Woburn Hill, Stoney-*
croft
- April 20, 1891 Hale, Miss, Lady Principal, *Edge Hill*
College
- Oct. 7, 1895 Hamilton, Mrs., 171 *Chatham-street*
- Nov. 16, 1891 Hampson, R. A., 10 *Sunnyside, Prince's*
Park
- Dec. 10, 1883 Hargreaves, Jas., F.C.S., F.A.S., *Peel House-*
lane, Farnworth-by-Widnes
- Oct. 17, 1892 Harley, Geo., 1 *Water-street*
- Dec. 13, 1875 Harpin, Edward, 119 *Moscow-drive, Tuebrook*
- Nov. 30, 1874 Harvey, Henry, M.B., 57 *Wavertree-terrace*,
Picton-road, Wavertree
- Oct. 1, 1894 Hawkes, A. E., M.D., 22 *Abercromby-square*
- Oct. 17, 1892 Hawkins-Ambler, George A., F.R.C.S.E.,
M.R.C.S., 162 *Upper Parliament-street*
- Oct. 1, 1894 Hepton, Thos., 74 *Bedford-street*
- Oct. 16, 1882 Herdman, W. A., D.Sc., F.R.S., F.L.S.,
F.R.S.E., Professor of Natural History,
University College, 32 *Bentley-road, Prince's*
Park
- Jan. 13, 1879 Higgins, Henry Longuet, 7 *Sandringham-*
drive, Princes Park

- Jan. 7, 1895 Higgins, Miss Maude Longuet, 79 *Bedford-street South*
- Nov. 12, 1894 Hoare, Rev. Edward N., M.A., *The Vicarage, Oak Hill Park, Old Swan*
- March 9, 1868 Holme, James, 10 *Huskisson-street*
- Oct. 30, 1893 Holt, Alfred, *Crofton, Sudley-road, Aigburth*
- Oct. 1, 1894 Holt, Richard, 54 *Ullet-road*
- *Dec. 14, 1862 Holt, Robert Durning, J.P., 54 *Ullet-road*
- March 10, 1879 Hughes, John W., *Allerton*
- Feb. 20, 1882 Hunter, Hugh, 25A *Duke-street*
- *Oct. 16, 1895 Jenks, Edward, M.A., Professor of Law, University College, 13 *Union-court*
- Jan. 26, 1863 Johnson, Richard C., F.R.A.S., 46 *Jermyn-street*, VICE-PRESIDENT
- Feb. 24, 1868 Jones, Charles W., J.P., *Field House, Waver-tree*
- April 29, 1889 Jones, Morris P., J.P., 20 *Abercromby-square*
- Oct. 5, 1891 Jones, Hugh R., M.D., B.Sc., 58A *Grove-street*
- Oct. 1, 1894 Jones, Stevenson, 1 *Abercromby-square*
- Oct. 7, 1895 Jones, Mrs. Thos., 29 *Oxford-street*
- Oct. 17, 1892 Jones, Wm. Wastell, 20 *Water-street*
- Nov. 4, 1895 Klein, Rev. Leopold de Beaumont, D.Sc., F.L.S., 6 *Devonshire-road, Prince's Park*
- Feb. 4, 1895 Lawson, George, 23 *Canning-street*
- Oct. 1, 1894 Lea, John, *Allandale*, 27 *Ullet-road*
- Dec. 10, 1894 Lee, John, B.A., 29 *Redrock-Street*
- *Dec. 11, 1871 Leigh Richmond, M.R.C.S., L.S.A., Physician to St. George's Hospital for Diseases of the Skin, 15 *St. James-road*
- Oct. 1, 1894 Leslie, Thos., 15 *Falkner-square*
- Oct. 1, 1894 Lewis, T. Rice, *Bank of Liverpool Limited*, *Water-street*
- Oct. 7, 1895 Linton, Rev. Robert M., M.A., *St. Paul's Vicarage, Lowood-road, Birkenhead*
- Nov. 14, 1881 Lloyd, Richard J., M.A., D.Litt., *Lombard-chambers, Bixteth-street*

- Oct. 1, 1894 Mackenzie, R. K., *Royal Insurance Co.*, 1
North John-street
- Nov. 12, 1894 Macpherson, Mrs. Florence, 102 *Queen's-*
road, Everton
- Jan. 23, 1882 Marcus, Heinrich, *Trafford Chambers*, 58
South John-street
- Nov. 17, 1873 Marples, Josiah, *Melvill Chambers*, *Lord-*
street, and *Broomfield, Egremont*
- Nov. 14, 1892 Marshall, Anthony R., *Queen Insurance-*
buildings
- Jan. 26, 1891 Mason, Robert, 8 *Elm Bank, Walton Breck-*
road
- Oct. 20, 1879 McArthur, Charles, 13 *Exchange-Alley*
- Oct. 17, 1881 McLintock, R., 8 *Molyneux Avenue, Broad*
Green
- Oct. 30, 1882 McMaster, John Maxwell (Messrs. J. B.
Wilson, Dean & McMaster), 22A *Lord-street*,
HONORARY SECRETARY
- Oct. 15, 1883 Mead, A. J., B.A., *Earlston-road, Liscard*
- Nov. 17, 1873 Mellor, James, Jun., *Weston, Blundellsands*
- Dec. 14, 1874 Mellor, John, *Grosvenor House, Crosby-road*
South, Waterloo
- Oct. 16, 1893 Moore, J. Murray, M.D., F.R.G.S., 51
Canning-street
- Nov. 3, 1890 Morrison, Col. G. H., J.P., 10 *Abercromby-*
square
- Nov. 1, 1880 Morrow, John, 36 *Falkner-square*
- March 6, 1882 Morton, George Henry, 14 *Grove-park*
- Jan. 8, 1855 Morton, Geo. Highfield, F.G.S., 209 *Edge-*
lane
- Oct. 29, 1850 Mott, Albert Julius, F.G.S., *Detmore, Charlton*
Kings, Cheltenham, EX-PRESIDENT
- Oct. 21, 1895 Moulton, T. A., 11 *Dale-street*
- Oct. 20, 1890 Mounsey, E., J.P., 13 *Falkner-square*
- Nov. 4, 1895 Mozley, Rev. Francis W., M.A., *Elleray*,
New Brighton

- *Oct. 21, 1867 Muspratt, E. K., *Seaforth Hall, Seaforth*
- Oct. 20, 1856 Nevins, J. Birkbeck, M.D., Lond., M.R.C.S.,
late Lecturer on Materia Medica, Royal In-
firmmary School of Medicine, 3 *Abercromby-*
square, PRESIDENT
- Oct. 1, 1894 Nevins, J. Ernest, M.B., Lond., 35 *Prince's-*
avenue
- Jan. 7, 1895 Nevins, Victor E. Esq., 3 *Abercromby-square*
- Feb. 6, 1865 Newton, John, M.R.C.S., 44 *Rodney-street*,
VICE-PRESIDENT
- Feb. 18, 1887 Nicholson, Robert, 11 *Harrington-street*
- Oct. 30, 1893 Nowell, Capt. S., 17 *Rock-park, Rock Ferry*
- Nov. 2, 1885 Oulton, Wm., J.P., *Hillside, Gateacre, and*
Albert-buildings, 12 Preesons-row
- Nov. 2, 1874 Palmer, John Linton, F.S.A., F.R.G.S., Fleet
Surgeon, R.N., 24 *Rock-park, Rock Ferry*
- Oct. 1, 1894 Parry, Joseph, C.E., *Municipal Offices*
- Oct. 1, 1894 Philip, George, Jun., F.R.G.S., 10 *Holly-road,*
Fairfield
- Nov. 4, 1861 Philip, Thomas D., 49 *South Castle-street*
and Holly-road, Fairfield
- Nov. 12, 1894 Philip, Thomas N., 7 *Ashfield-road, Aigburth*
- Oct. 7, 1895 Picton, Wm. H., 11 *Dale-street*
- *Nov. 15, 1886 Poole, Sir Jas., J.P., 4 *Abercromby-square*
- Oct. 31, 1892 Pooley, Miss, *Radnor-drive, Liscard*
- Oct. 29, 1888 Raleigh, Miss, 129 *Grove-street*
- March 24, 1862 Rathbone, Richard Reynolds, *Glan-y-Menai,*
Menai Bridge
- *Nov. 17, 1851 Redish, Joseph Carter, *Lyceum, Bold-street*
- Oct. 31, 1881 Rendall, G. H., M.A., D.Litt., Principal of
University College, 25 *Falkner-square*, Ex-
PRESIDENT
- Oct. 31, 1881 Rennie, J. W., 2 *Southwood-road, Aigburth*
- Nov. 29, 1869 Roberts, Isaac, F.G.S., F.R.A.S., D.Sc.,
Crowborough, Sussex
- Nov. 4, 1895 Robinson, Frederick, 165 *Canning-street*

- Jan. 22, 1872 Russell, Sir Edward, *Daily Post Office, Victoria-street, and 6 Abercromby-square, Ex-PRESIDENT*
- Oct. 15, 1894 Rutherford, Arthur, B.A., *4 Harrington-street*
- Nov. 12, 1894 Rutherford, Charles H., *8 Sweeting-street*
- Feb. 18, 1884 Rutherford, John, LL.B., Lond., *4 Harrington-street*
- Nov. 12, 1883 Rutherford, Wm. Watson (Messrs. Miller, Peel, Hughes & Co.) *8 Cook-street, HONORARY LIBRARIAN*
- Dec. 12, 1892 Rye, Miss Ellen L., *Bedford College, Bedford-street*
- Oct. 30, 1893 Sampson, John, *University College*
- Oct. 1, 1894 Sampson, T. E., J.P., City Coroner, *Sunny-side, Blundellsands*
- Dec. 11, 1893 Savile, Herbert, *20 Hackins-hey*
- Nov. 12, 1888 Scholefield, J. W., J.P., *Pembroke-road, Bootle*
- March 19, 1866 Sephton, Rev. John, M.A., *90 Huskisson-street*
- Oct. 15, 1883 Sephton, Mrs., *90 Huskisson-street*
- Nov. 18, 1895 Simpson, David K., *4 St. James-road*
- Oct. 1, 1894 Simpson, J. Hope, Bank of Liverpool Ltd., *Water-street*
- Jan. 23, 1893 Simpson, J. H., *7 Adelaide-road, Seaforth*
- Oct. 21, 1895 Smith, Jos. Kellett, L.R.C.P., L.R.C.S., J.P., *23 Russell-street*
- Dec. 10, 1866 Smith, Elisha, *27 Alexandra-drive*
- April 4, 1870 Smith, James, *37 North John-street*
- Feb. 23, 1863 Smith, J. Simm, *4 Bramley-hill, Croydon*
- Nov. 16, 1891 Staunton, M., *3 Canning-street*
- Nov. 18, 1878 Steel, Richard, J.P., *18 Hackins Hey, Ex-PRESIDENT*
- Oct. 31, 1892 Steele, Mrs. R. T., *31 Princes Avenue*
- Nov. 3, 1890 Steeves, George T., *Mount Allars, Bebington*
- Feb. 19, 1883 Steeves, Gilbert M., *Mount Allars, Bebington*

- Oct. 1, 1894 Stewart, W. J., B.A., Stipendiary Magistrate,
Dale-street
- Oct. 1, 1894 Sweny, Mark, Lieut. R.N., 2 *Abercromby-square*
- April 17, 1886 Tapscott, W. W., 39 *Old Hall-street*, and 41
Parkfield-road, Aigburth
- Oct. 15, 1894 Taylor, Austin, B.A., 2 *Aigburth-vale, Aigburth*
- Nov. 12, 1894 Taylor, Miss Lilian, *Carlton, Aigburth-road*
- *Feb. 19, 1865 Taylor, John Stopford, M.D., Aberdeen,
F.R.G.S., 6 *Grove-park, Liverpool*
- Oct. 21, 1878 Thompson, J. W., B.A., Lond. and Victoria,
19 *Castle-street*, HON. TREASURER
- April 20, 1891 Tucker, Miss Blanche, *Pupil Teachers' College, Shaw-street*
- *Feb. 19, 1844 Turnbull, James Muter, M.D., Edin.,
M.R.C.P., *The Spa Hotel, Tunbridge Wells*
- Jan. 25, 1892 Turton, Wm., 2 *Kimberley-street*
- Jan. 25, 1892 Turton, W. G., 2 *Kimberley-street*
- Feb. 19, 1877 Wallace, John, M.D., *Gambier-terrace*
- Jan. 27, 1862 Walmsley, Gilbert G., 50 *Lord-street*
- March 4, 1895 Wall, H. D. B., *Gambier-terrace, Hope-street*
- Jan. 9, 1865 Walthew, William, 6 *York-buildings, Dale-street*
- Oct. 1, 1894 Wands, A., *Glenisla, Penkett-road, Liscard*
- Feb. 20, 1893 Watson, Rev. T., *The College, Worthenburg, Wrexham*
- Feb. 17, 1896 Wilson, Chudleigh, 2 *Stuart-street, Luton, Bedfordshire*
- Oct. 1, 1894 Wilson, James, M.D., 52 *Rodney-street*
- Nov. 14, 1870 Wood, John, J., 20 *Lord-street*
- Nov. 17, 1884 Wortley, Wm., *Walton Grange, Walton*

HONORARY MEMBERS.

LIMITED TO FIFTY.

- 1.—1844 T. B. Hall, *Crane House, Yarmouth*
- 2.—1850 The Rev. Canon St. Vincent Beechy, M.A., Rector of *Hilgay, Norfolk*
- 3.—1851 The Rev. Canon Robert Bickersteth Mayor, B.D., Rector of *Frating, Essex*
- 4.—1865 The Right Rev. T. N. Staley, D.D., late Bishop of Honolulu, Vicar of *Croxhall, Staffordshire*
- 5.—1865 Sir Edward J. Reed, K.C.B., F.R.S., M.P., *Hex-table, Dartford, Kent*
- 6.—1865 Cuthbert Collingwood, M.A., M.B., F.L.S., 4 *Grove-terrace, Belvidere-road, Upper Norwood, London, S.E.*
- 7.—1867 Sir J. W. Dawson, LL.D., F.R.S., etc., Principal and Vice-Chancellor of McGill University, *Montreal*
- 8.—1870 Sir John Lubbock, Bart., M.P., F.R.S., etc., *High Elms, Farnborough, Kent*
- 9.—1870 Professor Sir Henry E. Roscoe, F.R.S., etc., Owens College, *Manchester*
- 10.—1870 Sir Joseph Dalton Hooker, M.D., F.R.S., etc., *Kew*
- 11.—1870 John Gwyn Jeffreys, F.R.S., *Ware Priory, Herts*
- 12.—1870 The Rev. Christian D. Ginsburg, LL.D., *Binfield, Bracknell, Berks.*, EX-PRESIDENT
- 13.—1874 Professor Frederick H. Max Müller, LL.D., *Oxford*
- 14.—1877 The Earl of Crawford and Balcarres, F.R.S., Foreign Secretary of R.A.S., etc., 9 *Grosvenor-square, London*
- 15.—1877 Albert C. N. Günther, M.A., M.D., Ph.D., *British Museum*

- 16.—1877 Adolphus Ernst, M.D., Principal of the Department of Science, Philosophy, and Medicine, University of Caracas
- 17.—1877 Dr. Leidy, Academy of Science, *Philadelphia*
- 18.—1877 Dr. Franz Steindachner, Royal and Imperial Museum, *Vienna*
- 19.—1877 The Rev. H. B. Tristram, M.A., LL.D., F.R.S., Canon of Durham, *The College, Durham*
- 20.—1881 H. J. Carter, F.R.S., *The Cottage, Budleigh Salterton, Devon*
- 21.—1881 The Rev. Thomas Hincks, B.A., F.R.S., *Stokeleigh, Leigh Woods, Clifton, Bristol*
- 22.—1881 The Rev. W. H. Dallinger, LL.D., F.R.S., P.R.M.S., *Ingleside, Lee, London, S.E.*
- 23.—1895 The Rev. James Martineau, LL.D., *35 Gordon Square, London, W.C.*
- 24.—1895 William Ihne, Ph.D., *Heidelberg*

CORRESPONDING MEMBERS.

LIMITED TO THIRTY-FIVE.

- 1.—1867 J. Yate Johnson, *London*
- 2.—1867 R. B. N. Walker, F.R.G.S., F.G.S., *West Africa*
- 3.—1868 Rev. J. Holding, M.A., F.R.G.S., *London*
- 4.—1868 George Hawkins, *Colombo, Ceylon*
- 5.—1868 J. Lewis Ingram, *Bathurst, River Gambier*
- 6.—1869 George Mackenzie, *Cebu, Philippine Islands*
- 7.—1870 The Venerable Archdeacon Hughes-Games, D.C.L.,
Andreas, Isle of Man
- 8.—1874 Samuel Archer, Surgeon-Major, *Singapore*
- 9.—1874 Coote M. Chambers, *Burrards Inlet, British
Columbia*
- 10.—1874 Edwyn C. Reed, *Santiago de Chili*
- 11.—1874 Millen Coughtrey, M.D., *Dunedin, Otago, New
Zealand*
- 12.—1875 Robert Gordon, Government Engineer, *British
Burmah*
- 13.—1877 Edward Dukinfield Jones, C.E., *Sao Paulo,
Brazil*
- 14.—1877 Miss Horatio K. F. Gatty, *Altrincham*
- 15.—1877 Dr. Allen, *Jamaica*
- 16.—1877 Dr. George Bennett, *Sydney*
- 17.—1877 Dr. David Walker, *Benicia, U.S.A.*
- 18.—1883 William Henry Finlay, *Cape Town Observatory*
- 19.—1884 Rev. W. G. Lawes, *New Guinea*
- 20.—1884 A. W. Crawford, *Oakland, California*
- 21.—1884 John Greenwood, Mining Engineer, *Melbourne*
- 22.—1884 Robert Abraham English, *Simla*

- 23.—1887 Rev. S. Fletcher Williams, *London*
24.—1889 St. George Littledale
25.—1889 Mrs. St. George Littledale
26.—1890 Sir Alfred Maloney, K.C.M.G., *Governor of Lagos*
27.—1890 Captain John Ferguson, s.s. "Aleppo," 22 *Norma-*
road, Waterloo
28.—1892 J. F. Palmer, L.R.C.P., Lond., M.R.C.S.,
F.R. Hist. Soc., 8 *Royal-avenue, Chelsea*

ASSOCIATES.

LIMITED TO TWENTY-FIVE.

- 1.—Jan. 27, 1862 Captain John H. Mortimer, "America."
(Atlantic)
- 2.—Mar. 24, 1862 Captain P. C. Petrie. (Atlantic)
- 3.—Feb. 9, 1863 Captain John Carr, ship "Scindia."
(Calcutta)
- 4.—Feb. 9, 1863 Captain Charles E. Price, R.N.R., ship
"Cornwallis." (Calcutta and Sydney)
- 5.—April 20, 1863 Captain Fred. E. Baker, ship "Nippon."
(Chinese Seas)
- 6.—Oct. 31, 1864 Captain Thompson, ship "Admiral
Lyons." (Bombay)
- 7.—April 13, 1865 Captain Alexander Cameron, ship
"Staffordshire." (Shanghai)
- 8.—Dec. 11, 1865 Captain Walker, ship "Trenton"
- 9.—Mar. 23, 1868 Captain David Scott
- 10.—April 7, 1884 Captain G. Griffith Jones, barque "Her-
mine"
- 11.—Oct. 7, 1889 Arthur G. Nevins, F.R.A.S., *Eastwood-
place, Hanley, Staff.*

DONATIONS TO THE LIBRARY.

RECEIVED DURING THE YEAR.

- Agriculture (U.S. Dept. of) Bulletin, No. 6: The Common Crow of the U.S.; The Jack Rabbits.
- Alkali Works: Report (Blue Book), 1895.
- American Academy of Arts and Sciences: Proc., vol. xxii, *n.s.*
- American Ethnology Bureau: 13th Annual Report, 1891-2.
- American Geographical Society (New York): Bulletin, vol. xxviii, Nos. 1 and 2, 1896.
- American Museum of Natural History: Annual Report, 1895; Bulletin, vol. vii, 1895.
- American Philosophical Society: Proc., vol. xxxiv, Nos. 147-149; Transac., vol. xviii.
- Ancient Science of Motion.* W. A. List, Omaha.
- Annales die Museo Nacional*, tom. iv.
- Anthropological Inst. of Great Britain and Ireland: Journ., vol. xxv, Nos. 2-4; vol. xxvi, No. 1.
- Antiquaries, Society of (London): Proc., vol. xv; vol. xvi, 1.
- Architects (Royal Institute of British): Journ., vols. ii, iii.
- Asiatic Society of Bengal: Journ. and Proc.
- Asiatic Society (Royal, Bombay): vol. xix, 51.
- Asiatic Society (Calcutta): Proc. and Annual Addresses; Journ., vols. lxiv, lxv.
- Astronomical Society (Royal); Monthly Notices, vol. lv, 8, 9; vol. lvi, 1-9; Mem., vol. li, 1892-95; General Index, vols. xxx-liv.
- Bath Natural History and Antiquarian Field Club: Proc., vol. viii, No. 3.
- Berwickshire Naturalists' Club: List of Members, 1895; Proc., vol. xv.

- Birkenhead Free Public Library: Reports, 1893-4, and 1894-5.
 Birkenhead Literary and Scientific Society: Inaug. Address,
 The Economics of Industry; Report for Session 39, 1895-6.
 Birmingham Natural History Society: Proc., vol. ix.
 Boston (U.S.) Society of Natural History: Proc., vols. xxvi,
 xxvii; Mem., vol. v, Nos. 1 and 2.
 British Association: Address to the Zoological Section of,
 1895. Prof. Herdman.
Brotherhood; July, 1896.
 Burnley Literary and Scientific Club: Trans., vol. xi.
 Californian State Mining Bureau: Bulletin, No. 8.
 Cambridge Philosophical Society: Proc., vol. ix, part i.
 Canadian Institute (Toronto): Trans., 1893-4, No. 8.
 Cape of Good Hope Royal Observatory: Report, 1894, 1895.
 Chemical Society: Journ., Sept., 1895, to Sept., 1896; Proc.,
 Nos. 155, 168, and Index; Jubilee of Society, 1891.
 Chester Society of Natural Science and Literature: Annual
 Report (25th).
 Civil Engineers (Institute of): Minutes of Proc., vol. cxxiv.
Cocoa: all about it.
 Copenhagen K. Danske Ver. Selskab.: *Oversight*, 1895-6.
 Copenhagen Royal Society of Northern Antiquaries: Memoirs,
 1895.
 Cornwall Polytechnic Society (Falmouth): Ann. Report (63rd).
Dwarf Survivals and Traditions. R. G. Haliburton, Q.C.,
 D.C.L.
 East India Association: Journ., vol. xxvii, 4; and vol. xxviii,
 5, 6.
 Engineers' Report (U.S. Army), 1895, 7 vols.
 Engineers (Institute of Civil): Proc., vol. cxxii; Charter,
 By-Laws, vol. cxxiii: Subject Index, vols. lix-cxxviii.
 Engineering Society (Liverpool): Trans., vol. xvi.
 Finnish Scientific Society (Helsingfors): *Ofversigt*, vols. xxxvi,
 xxxvii; *Bidrag* h. 54-56; *Acta*, tom. xx; *Observations*
 Meteorologiques, 1881-90, 1895.
 Franklin Institute (Philadelphia): Journals, 1896.

- Free Public Library (Liverpool): Annual Report (43rd).
Free Review; vols. v, vi.
- Geographical Society (American): Bulletin, vol. xxvii.
- Geological Society (Edinburgh): Trans., vol. vii.
- Geological Society (Liverpool): Proc., vol. vii, 3; Journ., vol. xv.
- Geological Society (London): Quart. Journ., vol. li, part IV, Nos. 204-207: Geological Literature, vol. ii.
- Geological Society (Royal Cornwall): Trans., vol. xii.
- Geological Survey (India): Mem., vol. xxvii, part I; Mem., Series 13, vol. ii: Records of Geolog. Surv. of India, vols. xxviii, xxix.
- Geological Survey (U.S.): 14-16th Annual Reports (4 vols.); Bulletin, 118-126, 128, 129, 131-134; Monographs, vols. xxiii, xxiv.
- Greenwich Observatory: Meteor. Reductions, part III: Temperature, 1841-90; Observations, 1893; Cape Meridian Observations, 1888-1891.
- Glasgow Philosophical Society: Proc., vol. xxvi.
- Glasgow University Calendar for 1896-7.
- Göttingen, König. Gesellschaft der Wissenschaften Nachrichten, Hist. Phil. Classe, 1895, Heft. i-iv; 1896, i, ii. Gesch. Mitt., 1895, i, ii; 1896, i.
- Harlem, Société Hollandaise des Sciences: *Archives Néerlandaises*, tom. xxix, xxx.
- Harvard College: Reports, 1894-5; Bulletin of Museum of Comp. Zool., vol. xxvii, 1-7.
- Hertfordshire Natural History Society and Field Club: Trans., vol. viii.
- Japan Imperial University: Calendar, 2554-55.
- Königsberg K. Physikalisch-Ökonomische Ges. *Schriften*, 1895.
- Leeds Philosophical and Literary Society: Annual Reports, 1894-5, 1895-6.
- Leicester Literary and Philosophical Society: Trans., vol. iv, parts I-IV.

- Lick Observatory: Contributions, No. 5; Eclipse of Sun, April, 1893.
- Linnean Society: Journal, Botany, vol. xxxi, Nos. 211-217; List, 1895-6; Proc., vol. lix.; Zoology, vol. xxv, 163.
- Liverpool Engineering Society: Trans., vol. xvii.
- Liverpool Health Report, 1895.
- Louvain University: *Sommaire Idéologique*.
- Manchester Literary and Philosophical Society: Memoirs and Proc., vol. ix, Nos. 3-6; x, 1-3.
- Marseille, Faculté des Sciences: Annales, tomes iv-vi.
- Melbourne Royal Society: Proc., vol. vii, *n.s.*
- Meriden Scientific Association: Trans., vol. vii.
- Meteorological Society (Royal): Quarterly Journ., vols. xxi, xxii.
- Meteorological Society (Scottish): Journ., Nos. 11, 12.
- Microscopical Society (Royal): Journ., 1895-6, parts I-IV.
- Milan, Reale Istituto Lombardo di Scienze e Lettere: Memorie, vols. xvi-xx; Rendiconti, vols. xxiv, xxvii, xxviii.
- Mining Institute of Scotland: Trans., vol. xvii, part I.
- Munich, Konig. Bay. Akad. der Wissenschaften: *Sitzungber*, vols. 1893-6.
- National Academy of Science (U.S.): Mem., vol. vii.
- Nature*, from Oct., 1894, to Sept., 1896.
- New York Academy of Science: Trans., vol. xiv; Annals, vol. viii, 6-12; ix, 1.
- New York State Library: Report, 1893; Museum Report, 1893; Bulletin; Bibliography.
- New York State University: Bulletin, vol. iii, 14, 15; Legislation, No. 6.
- North American Fauna*, No. 11.
- Nova Scotian Institute of Science: Ser. 2, vol. i, part 4.
- Observatory, Report of the Directors of the Liverpool.
- Omaha Idea*, An. W. A. List, Omaha.
- Philadelphia Academy of Natural Sciences: Proc., 1896 part I.

- Philadelphia (American Philosophical Society): Proc., vol. xviii, part III.
- Photographic Association (Liverpool Amateur): Report, 1895.
- Physical Society (Royal), Edinburgh: Proc., Session 1894-5.
- Powysland Club: Collections, vol. xxix.
- Quekett Microscopical Club: Journ., vol. vi, 37.
- Rochester (U. S.) Academy of Science: Proc., vol. ii.
- Royal Institution: Proc., vol. xiv, part 3, No. 89.
- Royal Institute of British Architects: Journ., vol. iii, 3rd ser.
- Royal Institute of Cornwall, Truro: Journ., vols. xii, xiii.
- Royal Irish Academy: Trans., vols. xxx, xxxi, 18-20; Proc., iii, 4, 5; List of Members, 1895.
- Royal Society: Proc., vol. lix, 350-7.
- Royal Society of Canada: Proc., vol. xii.
- Royal Society, Edinburgh: Proc., vol. xx.
- Royal Society, Victoria, Melbourne: Trans., vol. iv.
- Saga of King Olaf Tryggwason.* Rev. J. Sephton, M.A. (From author.)
- Sciences Naturelles, Société des, Cherbourg: Mem., vol. xxix.
- Sciences Physiques et Naturelles, Bordeaux: Memoirs, vol. v.
- Scottish Royal Society of Arts: Trans., vol. xiv.
- Sheffield Naturalists' Club: 25th Annual Report (1895).
- Smithsonian Institution (Washington): The Siouan Tribes of the East; Archæologic Investigation in James and Potomac Valleys; Chinook Texts; Miscellaneous Collections, Nos. 971-2; Contributions, Nos. 980-9, and Account of the Institution; Mem., vols. xviii, xix; The Cyprinodonts; The Stalk-eyed Crustacea.
- Somersetshire Archæological and Natural History Society, Taunton: Proc. Third Ser. vol. i.
- Southport Meteorological Observatory: Report for 1895.
- Statistical Society (Royal): Journ., vols. lviii, lix.
- St. Petersburg, L'Académie Imperial des Sciences: Bulletin, vol. ii, 5; iii, 1.
- Summer Seaside Meteorology.* W. G. Black. (From author.)

Sydney, Royal Society of New South Wales: Journ. and
Proc., vol. xxviii.

Tufts College (U.S.) Studies, No. 4.

University of Baltimore: Cir., No. 126.

Vaccination Question, The. A. W. Hutton.

Vienna, Kais. Acad. der Wissenschaften: *Sitzung. Natur.*, vols.
xix-xxvii, 1895; ix-xviii, 1896; *Sitzung. Math. Phys.*,
ii, iv, 1895.

War Department, U.S.: Report, 1895.

Zoological Society of Philadelphia: Annual Report (24th).

TREASURER'S ACCOUNT, 1894-95.

Dr. *The Literary and Philosophical Society of Liverpool.* Cr.

RECEIPTS.		PAYMENTS.	
	£ s. d.	1894-95	£ s. d.
1894-95.			
To Balance from 1893-94	10 15 5	By Royal Institution, Rent	20 0 0
" Cash from Subscriptions:—		" Printing, Binding, and Stationery	113 3 11
168 Annual Subscriptions		" Refreshments, &c.	27 11 0
(Gentlemen) at 21/.....	£176 8 0	" Treasurer's Expenses	6 5 6
1 Annual Subscription (Gen-		" Secretary's "	1 1 1
tleman) at 10/6	0 10 6	" Map for Lecture	2 5 0
16 Annual Subscriptions		" Limelight	3 0 0
(Ladies') at 10/6	8 8 0	" Sundries	0 4 0
Arrears received	2 12 6	" Balance in hand	25 3 11
	187 19 0		
	<u>£198 14 5</u>		<u>£198 14 5</u>

PROCEEDINGS
OF THE
LIVERPOOL
LITERARY AND PHILOSOPHICAL SOCIETY.

EIGHTY-FIFTH SESSION, 1895-96.

ROYAL INSTITUTION, LIVERPOOL.

Annual Meeting, October 7th, 1895. J. Birkbeck Nevins, M.D., in the Chair. The following Report was read and passed :

REPORT.

In presenting their Report of the Society's proceedings during the Eighty-fourth Session, the Council have much pleasure in recording that the Society has largely increased its membership, and that the interest taken in its proceedings, evidenced by the attendance at its meetings, has also shewn gratifying progress.

Fifty-three new ordinary members have been elected during the Session ; eighteen have resigned, and four have died. The total number is now 214, as compared with 183 at the corresponding period of last year.

The membership has not been so high for many years. The Council regard this accession of strength with great satisfaction, as affording promise of increased vitality and

usefulness. The Council would also congratulate the Society upon the large number of papers contributed by new members, as showing not only their membership but also their active interest in its intellectual work.

Fourteen meetings were held during the Session, the average attendance being 111. This, again, is a considerable advance on the average attendance for many years past, and the Council trust that the interest so evinced in the proceedings may be maintained.

The Papers read before the Society during the Session have been of high excellence, and of a varied and interesting character. The Council have printed twelve papers, the illustrations of some of which form a valuable feature.

The Council congratulate the Society on the work undertaken and successfully completed by the present Honorary Librarian, in bringing into order the large collection of books belonging to the Society, and thus rendering them accessible to members. The Council recognise the labour of the Librarian in this much needed work, and tender him their thanks.

The Council regret the loss by death during the Session of two of the honorary members. The Rev. Thomas P. Kirkman, M.A., F.R.S., was distinguished as a Mathematician. He was a frequent contributor to the proceedings of the Society, and had been connected with it since 1861. By the death of Professor Huxley, the Society has lost an honorary member of world-wide fame.

The Treasurer's Statement of Accounts was read and passed.

The Annual Election of Office Bearers and Members of the Council, and the re-election of Associates, took place.

The President delivered his second Inaugural Address, entitled "Systems of Colonization from Prehistoric Periods to the Present Time, and their Results."

ORDINARY MEETINGS.

I. Oct. 21, 1895. The President, Dr. J. Birkbeck Nevins in the chair. Paper by Professor Lodge, LL.D., D.Sc., Lond., F.R.S., entitled "Modern views of Light," with experiments.

II. Nov. 4. The President, Dr. J. Birkbeck Nevins in the chair. Paper by Mr. George Philip, Junr., F.R.G.S., entitled "The Enlargement of the Geographical Horizon as illustrated in the History of Cartography."

III. Nov. 18. The President, Dr. J. Birkbeck Nevins in the chair. Paper by Mr. B. L. Benas, J.P., entitled "Records of the Jews in Rome, and their Inscriptions in the Ancient Catacombs."

IV. Dec. 2. The President, Dr. J. Birkbeck Nevins in the chair. A Paper was read by Mr. Edward Davies, F.C.S., entitled "Acetylene and its Applications," illustrated with experiments, of which the following is an abstract.

ACETYLENE.

This gas was first recognized by Sir Humphrey Davy in 1836. He called it Klumene. It was first thoroughly studied by Bertheld, whose researches were almost the only ones made until recently. The gas is produced in an impure state by the incomplete combustion of coal-gas, or other compounds of carbon and hydrogen. Although its high illuminating power was known, there was no method of making it at a practicable cost, until Mr. T. L. Wilson, aiming at the production of alloys of calcium, found that a mixture of lime and anthracite, heated in an electric furnace, fused to a heavy mass. On the addition of water to this, Acetylene is at once given off. $\text{CaC}_2 + \text{H}_2\text{O} = \text{CaO} + \text{C}_2\text{H}_2$. A pound of the carbide of calcium gives about five cubic feet of Acetylene, which, when burnt, will give

the light of 240 candles for one hour. It is said that in America, the carbide of calcium can be made for £4 a ton. As this would yield 11,000 cubic feet of Acetylene and slaked lime of the value of 10s., the cost of 1,000 cubic feet would be 6s. 4½d.

It is not the best use of Acetylene to burn it alone. If mixed with illuminating gas of low quality, it enriches it with a non-condensable gas, and would be superior to the vapour of volatile hydro-carbons, which is apt to condense in cold weather.

It may be used alone in country places where there is no gas, and the most convenient form would probably be the gas compressed, or liquefied, in steel cylinders. In this way it could be utilized for gas buoys. It possesses many advantages as an illuminant for magic lanterns where great area is not required, and it can be used in photography.

Its great illuminating power is due to the high proportion which the carbon bears to the hydrogen. Hydrogen gives a very hot but non-luminous flame. The carbon, heated by this flame to whiteness, gives the illuminating effect. If, however, the amount of carbon be too great, part of it is apt to be deposited as soot or smoke. Hence, a small jet must be used in burning Acetylene, or it must be diluted with coal-gas.

As Acetylene can take up more hydrogen, becoming C_2H_4 , and from this alcohol can be made, a possible field of usefulness for Acetylene is the artificial production of organic bodies at present derived from natural sources. Benzene can be obtained by the action of heat on Acetylene, and thus the great field of the coal-tar dyes is open to this new industry.

It is scarcely possible yet to fully estimate the importance of this new discovery. It owes its existence to

the intense source of heat placed at our disposal by the electric furnace. Unlike heat produced by chemical action, to which there is a limit which cannot be passed, heat from electricity appears to have no definite bounds, and by its agency we shall certainly have great advances in metallurgy and allied sciences.

V. Dec. 16. The President, Dr. J. Birkbeck Nevins in the chair. Paper by Mr. James Birchall, entitled "Medieval Towns in France and Germany; their Origin and Municipal Development."

VI. Jan. 6, 1896. The President, Dr. J. Birkbeck Nevins in the chair. Paper by Mr. J. Murray Moore, M.D., F.R.G.S., entitled "A Study of Euphuism."

VII. Jan. 20. The President, Dr. J. Birkbeck Nevins in the chair. Paper by Mr. J. C. Given, M.D., Lond., entitled "Some Aspects of Heredity."

VIII. Feb. 3. The President, Dr. J. Birkbeck Nevins in the chair. Paper by the Rev. J. Sephton, M.A., entitled "Some Runic Remains," illustrated.

IX. Feb. 17. The President, Dr. J. Birkbeck Nevins in the chair. Paper by the Rev. Edward N. Hoare, M.A., entitled "Robert Browning, Thinker, Seer, Poet."

X. Mar. 2. The President, Dr. J. Birkbeck Nevins in the chair. Paper by Mr. Robert H. Case, B.A., entitled "Dryden."

XI. Mar. 16. The President, Dr. J. Birkbeck Nevins in the chair. Paper by Dr. Ernest Nevins, entitled "Hindu Domestic and Religious Customs."

XII. Mar. 30. The President, Dr. J. Birkbeck Nevins in the chair. Paper by the Rev. Leopold de Beaumont Klein, D.Sc., F.L.S., entitled "Revised Versions of the Bible."

XIII. April 13. The President, Dr. J. Birkbeck

Nevins in the chair. Paper by Dr. E. W. Hope, entitled "A Short Review of the Progress of Sanitation in Liverpool."

XIV. April 27. The President, Dr. J. Birkbeck Nevins in the chair. Paper by Mr. John Newton, M.R.C.S., entitled "The Mystery of Life."

Ordinary Members elected during the Session: Mr. Wm. Alexander, M.D., F.R.C.S., Eng., Rev. Bruce Macpherson Broadfoot, M.A., LL.D., Miss Bramwell, Mr. Charles Cuthbert Bowes, Mr. Alfred H. Frazer, Mrs. Hamilton, Mrs. Thomas Jones, Rev. Leopold de Beaumont Klein, D.Sc., F.L.S., Rev. Robert M. Linton, M.A., Mr. T. A. Moulton, Rev. Francis W. Mozley, M.A., Mr. Wm. H. Picton, Mr. Frederick Robinson, Mr. David K. Simpson, Mr. Joseph Kellett Smith, L.R.C.P., L.R.C.S., Mr. Chudleigh Wilson.

Numbers present at the Annual and the Fourteen Ordinary Meetings: 210, 115, 160, 105, 98, 66, 73, 91, 69, 94, 62, 152, 81, 103, 108. Average attendance, 106.

PAPERS READ DURING SESSION.

SYSTEMS OF COLONIZATION FROM PREHISTORIC PERIODS, AND THEIR RESULTS.

BY J. BIRKBECK NEVINS, M.D., LOND.,

PRESIDENT.

THERE are few social questions that have exercised more influence upon England in the past than the history of her colonies, or that have lately proved more difficult and disquieting than that of colonization by England and other nations — the European world being at present unusually if not almost madly rushing after new colonies, as if the simple fact of acquiring a new colony was in itself a certain gain, and an object earnestly to be desired. It cannot therefore be an inappropriate subject to be brought at this period before a Philosophical Society, and a brief survey of the great distinguishing features of past colonizations during a period of at least four thousand years, I trust, will not be without interest to the Literary and Philosophical Society of Liverpool.

Migration as distinguished from Colonization.

(*Colo-ĭre*—to cultivate, to dwell).

The movements by land of multitudes of men, women, and children, with flocks and herds to supply nourishment for indefinite periods, such as those of the Aryans from Central Asia to India, the south of Europe, the central regions of Europe, and to Scandinavia in the north, are generally spoken of as MIGRATIONS, and do not come within the scope of this paper as “COLONIZATION,” which term generally implies at the present day transference by sea of limited numbers of persons leaving their original

homes for the purpose of finding new countries which they propose to cultivate and make into homes for their descendants. Such, in general terms, are the colonies we are now to consider, though many essential differences will be seen amongst them.

Reasons for Colonizing, and different systems for carrying it out.

The causes which have led to the formation of colonies have been very numerous, and often essentially different, and, in the review now to be made, it would almost appear as if the only feature in which they are all alike, and that applies to all almost without exception, is that

“They should get who have the power,
And they should keep who can.”

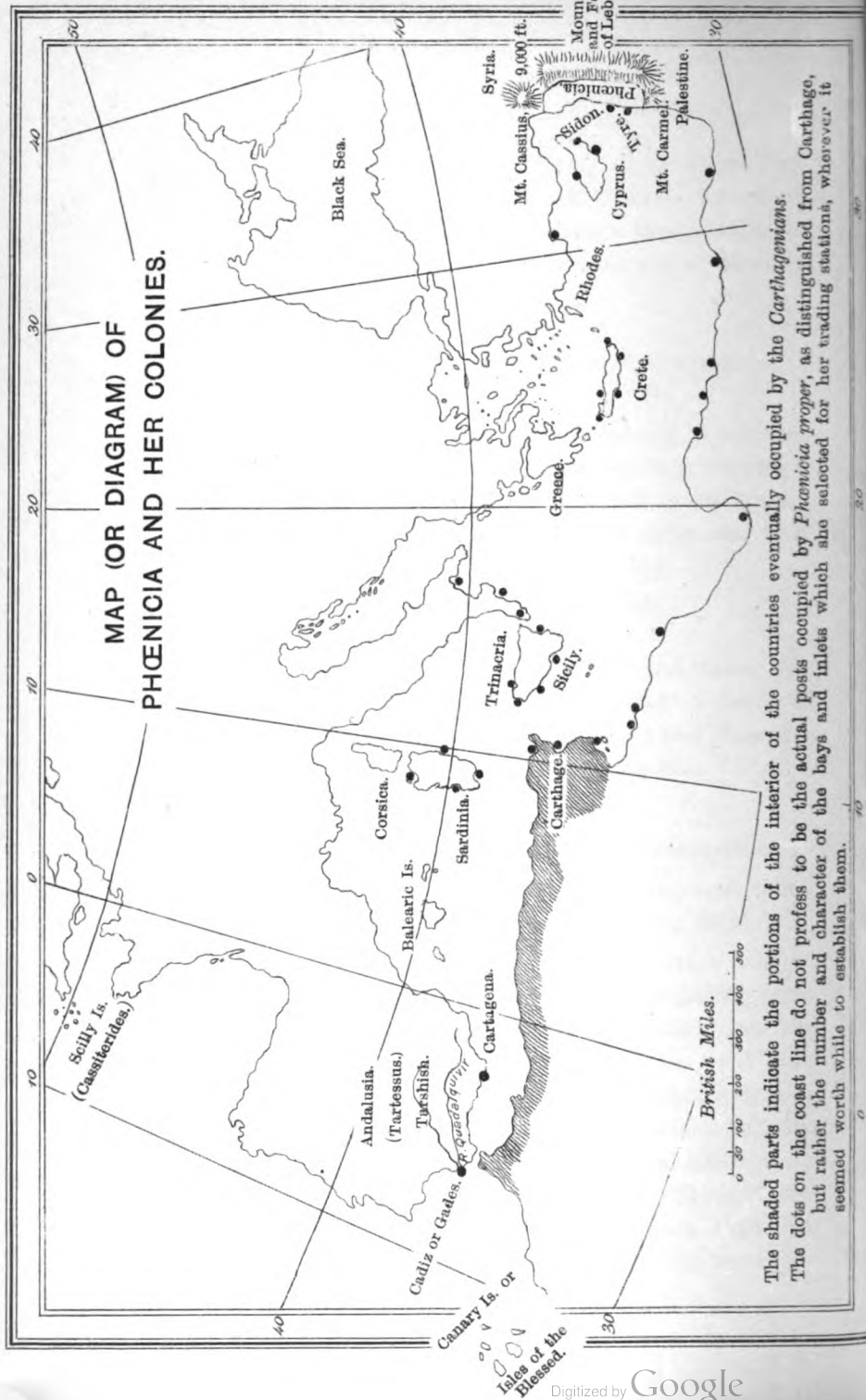
honestly if possible, but at any rate “get” and “keep”—and no one people appears able to establish a right to upbraid its neighbour with being less honest and straightforward than itself in the matter of colonization.

PART 1ST.—PREHISTORIC AND ANCIENT COLONIZATIONS.

The earliest historic Colonizer—the essential principle of his Colonization, and its results—ABRAHAM, B.C. 2000.

The essential principle of his colonization was a religious one, viz., the creation of a monotheistic community, having no visible idols, as distinguished from the polytheistic idolatrous people from whom he went out; and, further, the formation of a people who should live by the cultivation of their future places of settlement, with the encouragement at the same time of a pastoral life in those parts of their future homes best adapted for it; and also the development of industrial arts of various kinds for those qualified for them, all essentially involving *work*.

MAP (OR DIAGRAM) OF PHŒNICIA AND HER COLONIES.



The shaded parts indicate the portions of the interior of the countries eventually occupied by the *Carthaginians*. The dots on the coast line do not profess to be the actual posts occupied by *Phœnicia proper*, as distinguished from Carthage, but rather the number and character of the bays and inlets which she selected for her trading stations, wherever it seemed worth while to establish them.

This primary conception has never been departed from by his descendants, and as a result of the first of his principles a code of moral and social laws was eventually given to his people of such a character as to gain from the great Roman, Ptolemy Philadelphus, the king of Egypt in 277 B.C., the high praise of having it translated into Greek because of its superlative excellence.

Results.

And what has been the result of this conception of colonization? It has been that, after a period of nearly four thousand years, hundreds of millions of people throughout the world still accept its fundamental principle, and while millions distributed throughout the world accept the moral code of laws as still binding upon them nearly all the remainder are influenced by them to an extent of which they are often little aware, but with infinite benefit to the world at large.

The next historic system of Colonization.

The PHœNICIANS—probably earlier than 2000 B.C to 150 B.C

The essential principle of this system was maritime trading and manufacturing. It was not agricultural, and it laid no stress upon religious laws or worship. It discouraged fighting, and jealously kept all its commerce Tyre and Sidon as its head-quarters.

Phœnicia, on the extreme east of the Mediterranean, was a small country consisting almost entirely of seaboard, and little larger than Yorkshire in area, being about twice the length and half the breadth of that county. To the north was Syria, and to the south and east Palestine, while the Lebanon mountains and forests occupied its whole length on the east. The country itself was too

limited to supply the necessary food, &c., for the inhabitants, so that foreign supplies were essential to it, while the forests and mountains of Lebanon furnished unlimited timber and the other requisites for ship building, and at the same time the character of the people supplied the skill and adventurous spirit requisite for their navigation. Their system of colonization for hundreds of years was to select innumerable little bays, or inlets in the coast line, where they could take shelter for the night so as never to lose sight of land, and here they made little trading posts if the neighbouring country was calculated to furnish articles worth trading in and taking home; but they did not expend money or strength in making fortified places. When, therefore, any opposing force attacked them, they simply departed, and the consequence was strikingly illustrated when the Greeks also began to colonize and found the Phœnician posts convenient for annexation.

“When Greek meets Greek then comes the tug of war”; but when Greek met Phœnician there was no tug, for the Phœnician quietly departed for some other favourable situation. While, therefore, the Phœnicians had in the first instance occupied nearly every island in the Greek Archipelago that was worth having, they were eventually driven out of them all by the Greeks, and were obliged to extend their voyages to greater distances and more serious maritime dangers than the Greeks ventured to follow. As a consequence they went to Rhodes, then to Crete, and later still to Sicily, requiring such skill in navigation as should enable them to be out of sight of land for days at a time. They then ventured still further, but still from place to place, as close as possible, and thus came to Sardinia, where they established many posts, but Corsica they did not favour commercially. It lay out of their way, and, besides this, it possessed a malarial pestilen-

tial climate which rendered it highly convenient as a convict station for their criminals, whose lives there would probably be short and no questions would be asked.

Further west still they came upon the south of Spain, named by them Tarshish,* by the Romans Tartessus, and by ourselves Andalusia, the richest and most productive portion of Spain, and here they founded Gades or Cadiz, which rose to such magnitude that it was said that only Rome contained more citizens than Gades. Here the river Guadalquivir washed down gold from the mountains in the interior, which the Phœnicians soon began to mine for still more abundant riches in the shape of precious stones, gold, and many other metals of great value in manufacture, and they eventually sailed as far north as Cornwall and the Cassiterides (the Scilly Isles), for the tin so invaluable for making bronze, and scarcely to be obtained by them elsewhere. Lastly, they sailed south to the Canary Islands, so rich in wine and fruits as to be termed by the discoverers "The Islands of the Blessed."

* "Tarshish, although at the western extremity of the Mediterranean, and 2,500 miles from Phœnicia, must have become known in some way to the Phœnicians, and through them (by name at any rate) to the authors of Genesis, for Tarshish is mentioned in the genealogy of the descendants of Noah as being the great grandson of Japhet, by whom Europe and the West were peopled (Gen. x, 2-4), and the mention in the Psalms that "the kings of Tarshish and of the Isles shall bring presents" (Psalm lxxii, 10) shows the continued intercourse with south Spain at the time of Solomon, while the presence of the chrysolite or Topaz on the breastplate of the High Priest (Ex. xxviii, 17, 18) is further proof of the early intercourse with Tarshish and its riches, since it was from that country that these precious stones were brought to the East"—KENDRICK'S *Phœnicia*, p. 118. (Tarshish is sometimes confounded in the popular mind with Saul of Tarsus in Asia Minor, a totally different part of the world). When at a later period Jonah found a ship going to Tarshish from Joppa, and took his passage in it "to flee from the presence of the Lord" it is evident he contemplated a long and distant voyage, as Tarshish, near the site of the Pillars of Hercules, was at that time thought to be the end of the world in the west.

In this account Carthage, founded by the Phœnicians, must not be passed by, because they there commenced a new system of colonization, viz., a combatant and a conquering one. They fought with the original inhabitants until they had subdued or exterminated them, and they also took the neighbouring Numidians into their pay as mercenary forces, and in this way took possession, not of small isolated sheltered bays or inlets, but of the extensive region of Carthage, and of the whole coast line of north-west Africa, until the Romans, who brooked no competitors in arms, at length conquered them, after a century of fighting, and Carthage was wiped from the face of the earth about 150 B.C.; while non-combatant commercial Tyre continued to be an important power for about a thousand years longer.

Results of Phœnician Colonization.

The Greek historians say that it was from Phœnicia that Greece derived its alphabet and knowledge of letters, and their employment in reading and writing, and it is therefore from that remarkable small coast-line people that western Europe and America, and even a portion now of the eastern nations of Asia, have derived these indispensable instruments of intellectual advancement. They were the first great builders of ships capable of taking long voyages, and were the possessors of the astronomical knowledge and nautical skill and daring which made such voyages possible. They taught the world how to sink mines for obtaining the mineral ores from the mountains, and also the chemical skill necessary for obtaining the metals from them, and, further, for combining them so as to produce the bronze and other compounds which characterised ages of mankind. Their

manufactures of glass* and dyes were prized throughout the world, and are still scarcely surpassed, and they set the great example of a people maintaining an almost unexampled influence throughout the world without the employment of military forces, relying upon their navy for their protection and success. In a word, they carried arts, civilization, and knowledge of the highest order to every part of the then known and inhabited globe.

Greek System of Colonization and its Results.

Greek colonization did not commence in earnest until about the time of Solomon, a thousand years after the Phœnicians became colonists.

“Two thousand Abraham, fifteen hundred Moses ;
One thousand Solomon the Triad closes.
Now swarm Greek colonies o’er Asia’s coast,
 And Homer sings how hapless Troy was lost.”†

The system of Greek colonization was the very opposite to that of the Phœnicians in almost every essential respect. For while the Phœnician so-called colonies would be more correctly described as trading depôts, established by adventurous merchants purely for the purposes of commerce, and occupied simply by their business employés and the skilled artizans required by their graving docks for their shipping (the returns from which always went to Tyre or Sidon, the head-quarters of their employers), the Greek colonies were, as a rule, either sent out paternally by

* They sent to Acre for the sand of “brilliant whiteness” found there for making their glass, and seaweeds were diligently cultivated on the rocky islets near Sicily, from which was obtained, by burning them, the soda which was also necessary. By fusing various metals with their glass they made artificial gems, which were highly valued, and the manufacture of which was kept a profound secret.

† Conybeare’s *Mnemonics for great Historical Dates*.

an over stocked state or city* to found a new but careful copy of its parent, or else the party which had been beaten in one of the endless fights among the Greeks, even of the same city or state, escaped from further conflict or persecution by flying to some distant place, and there forming a new and totally independent colony.

Again, the object of the Phœnicians was to establish friendly commercial relations with the countries they visited, and to obtain and keep their settlements without fighting, and without, as a rule, attempting to cultivate the surrounding country themselves ; but the Greeks went forth to found homes for themselves and their descendants, the possession of which they obtained at first (fairly if they could, but at any rate they obtained them), and kept them by force of arms if necessary.

Further, the Phœnicians were bound to the parent state by the closest ties, while the Greek colonies were totally independent of their parent homes, except so far as a sentiment of relationship prevented them from attacking their mother state or assisting her enemies ; but they paid no taxes to her or received laws from her, until Athens, in the height of her power and pride, levied contributions not only from other Greek colonies, but from her own also, which alienated them from even the sentimental bond, and left them, as it were, a multitude of simple separate sticks, instead of a combined body, and the Roman power easily overcame them, and thus reduced the whole of Greece to the condition of a subordinate and conquered people about 150 B.C., after an existence of about 850 years, instead of the 3,000 years or more that Phœnician Tyre remained a power.

* The Greek term for them was ἀποικίαι=ἀπό, from ; οἶκος, home=dwellers from home from whatever causes. "Swarmings from the old hive" is Payne's poetized translation of the term in his *European Colonies*—a book of high interest and value.

Roman Colonization.

The Roman Colonization introduced a new and essentially different system from any previous one, for while the oldest, viz., that of Abraham, was based upon the diffusion of a *religion*, that of Rome was based upon the extension of *law* throughout the entire extent of the empire; so that whatever might be the distance of the colonist from the parent city—Rome—he knew that he could still “appeal unto Cæsar,” and the authorities, as well as the people, knew that “they were in danger to be called to account for any causeless uproar,” or for arresting a Roman citizen without sufficient first cause.

The Phœnician and Greek Colonization was essentially maritime, but the Romans extended almost entirely upon the land; and while the Phœnician could scarcely be called colonies at all in any strict sense, and the Greek were avowedly independent of the mother from whence they sprung, Rome never lost hold even of her most distant colonies, for she constructed most admirable high-roads direct to every part of her world, all of which centred in Rome, by means of which communication was easy and perfect from the heart of the empire to its smallest and most distant member.

Phœnicia cared little, apparently, about propagating her religion, whatever it might be, though she did carry, for her own people, the worship of Hercules and Venus, her two principal divinities; while Greece, by the force and charm of her intellect and literature, spread the knowledge and the æsthetic adoption of her wonderful mythology wherever she went. Rome, on the other hand, made no attempt or pretence to act as a religious missionary. But, simply for the sake of peace, and to gratify the feelings of her absorbed or conquered new provinces, she

quietly sanctioned or adopted their divinities ; for among the multitude of gods in her imperial repertory what did it matter adopting a few new ones more or less. In this respect England has, to a certain extent, followed the example of Rome in not interfering with the religious belief or observances of her incorporated subjects, whether Hindu, Buddhist, Mahometan, or others, unless they transgress what she esteems as the fundamental laws of morals or of mercy, as for example in the Hindu Suttee, or the holocaust of victims at the bidding of some of the chiefs of Central Africa.

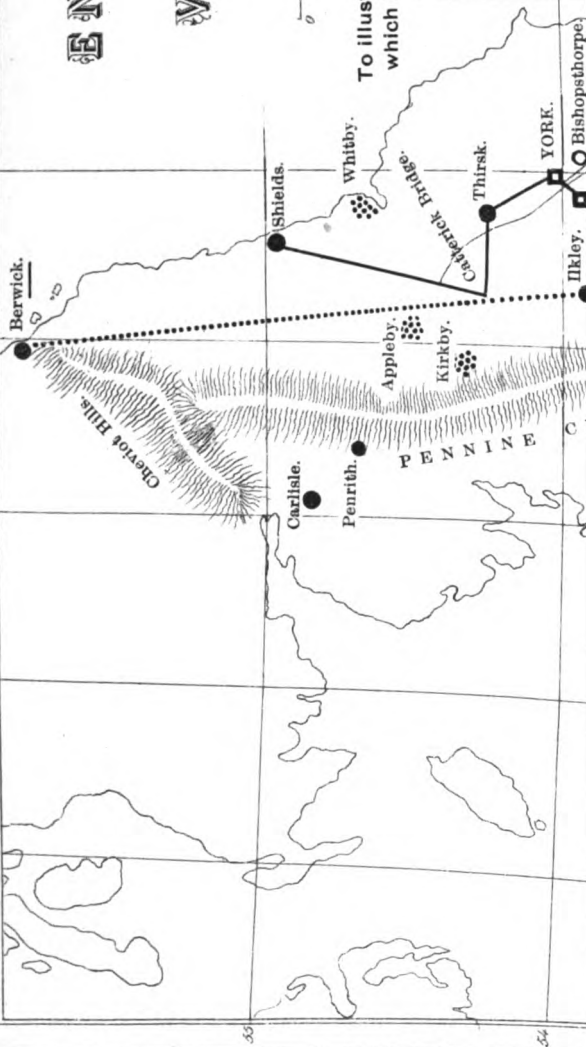
Phœnicia systematically, and Greece when convenient, adopted peaceable measures in treating with the inhabitants of the places they desired to occupy ; but Rome never hesitated to employ her armies to bring unwilling neighbours to a thorough understanding that she was to be the master. When, however, this fundamental fact was fully acknowledged, then she dealt fairly and honourably with them, giving to all the benefits of Roman law, Roman roads, Roman civilization, and an almost universal cessation of the previously recurrent internecine or international warfare. She planted colonists upon the lands formerly uncultivated, or possessed by intractable opponents whom she extirpated ; and many of them being old legionaries, as well as agriculturists before joining the ranks, they not only cultivated the land and thus added to the riches and strength of the empire, but they still remained a loyal portion of that power under whose banner of S. P. Q. R. they had fought until military reverence had become a second nature, and they were not only colonists from Rome as their home, but also invincible allies until she fell (owing to her own hopeless corruption and vice) a prey to the Teutons and Goths, and ceased to be an empire except in name. A name—the

ENGLAND AND WALES.

English Miles.

0 10 20 30 40 50

To illustrate the different Races
which have colonized England.



CEL TIC occupation indicated by the Names—"Pen-nine Chain of Mountains," "Pen-rith," "Pendlebury," "Pen-y-Gent,"
the Fortified Camps ■ and their Names—"Chester," "Cester," "Caster," and the Roads.
the Names of Places and Divisions throughout England.
the Names of Towns, "By" ❁ Of Villages, "Thorpe," ❁ Of Sea-board Towns, "Vie," or "Wick," or "Wich."
the Castles—but not shown on this Map.

ROMAN
SAXON
DANISH
NORMAN

fatal object of ambition under the title of Imperator Romanorum semper Augustus—to the rulers of the Germans for centuries, for which they too often sacrificed almost everything that a patriotic ruler might think really worth possessing.

And what has been the result of this Roman system of Colonization?

A diffusion throughout western Europe of a consciousness of international law, and of many principles of civil law, which are still a living force: the existence of cities throughout Europe which have proved centres of civilization and order; and the existence of roads throughout Italy, Spain, portions of France, and the whole of England, that are still in daily use, and are trophies of their engineering skill and thoroughness, and their determination that there should be nothing of Jerry-work in what a Roman engineer devised, and a Roman artizan carried into execution, and also to us, as Englishmen, the fact that our domestic laws are essentially derived from the Roman law regulating the financial relations between husband and wife consequent upon marriage, the testamentary powers of the husband and the distribution of his property if he dies intestate.*

The Roman Roads and “London-stone.”

The accompanying map illustrates these roads, and gives the names of the principal ones, though it would not be practicable to give them all on so small a map. In order to connect the whole island and make every part accessible, the Emperor Vitellian ordered roads to be made from London in every direction, and they were to commence at a stone still placed in Cannon Street, which was

* *Roman Law*, by Lord Mackenzie, chap. iii, p. 40; chaps. v-vii.

at that time the centre of London. It is built into a recess on the outside of the church wall, nearly opposite the Cannon Street Station, and the accompanying sketch shews its situation and appearance in 1798. It has since been removed a short distance from its position at that date owing to the widening of the street, but it is impossible to be in doubt about it when it is seen in its place in the church wall when walking along Cannon Street towards London Bridge.

Tradition had it that the possessor of London-stone would be the possessor of London city, and therefore, when Jack Cade, under his assumed title of Lord Mortimer, entered London, followed by thousands of his men, during his rebellion in the reign of Henry VI, he made at once for London-stone, and in state took possession of it.

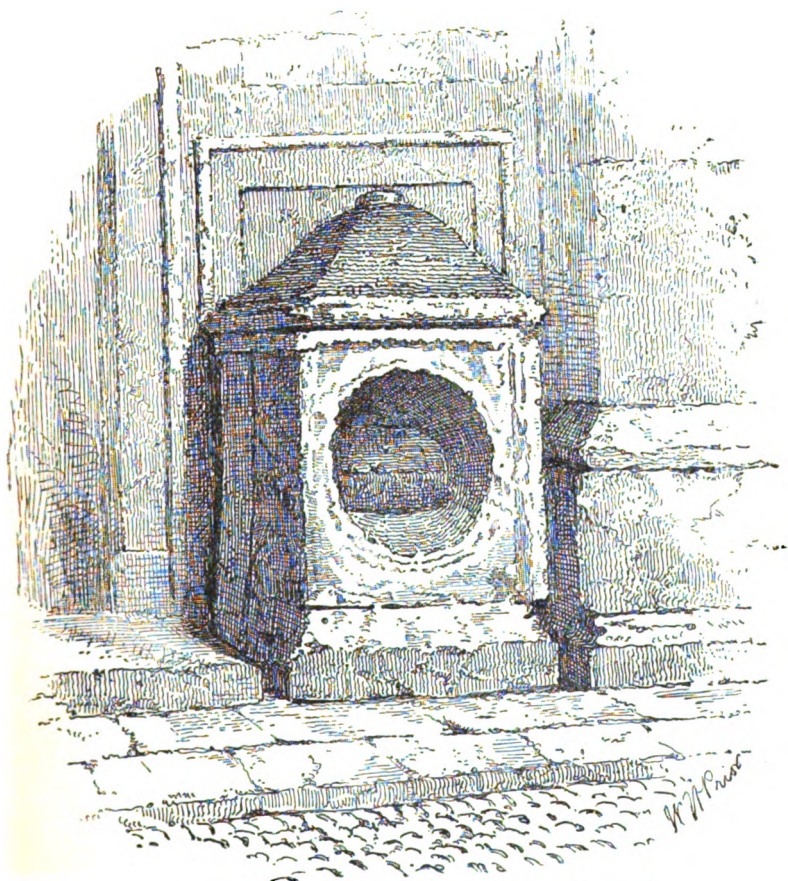
London. Cannon Street.

Enter JACK CADE and the rest. He strikes his staff on London-stone.

Cade. Now is Mortimer lord of this city. And here, sitting upon London-stone, I charge and command that, at the city's cost, the gutters run nothing but claret wine this first year of our reign.—
HENRY VI, 2nd part; *Act iv; Scene vi.*

From this stone one of the roads went straight to Rochester, and thence to Canterbury and Dover in that direction, and through St. Albans, Lichfield, Uttoxeter, Chester to Caernarvon. From Chester it branched past Manchester and Ilkley to Thirsk, and thence to Catterick Bridge, have the name of "Watling Street" throughout,*

* It is commonly understood that this name is merely a modified form of the Emperor's name, Vitellian. Street-name Wat(e)ling. The Roman V is converted into the Saxon W. The "i," as in the English "girl," has changed into "a," as in Yankee "gal," or in the past tense of "drink." The "t" is unchanged. If an "e" ever appeared in the street name it would probably not be sounded, and has disappeared. A double consonant continually drops one of them, as "penny," "pence"; "i" is unchanged; "a" is dropped, as Wien for Vienna; and the "n" finishes with a "g," which is merely a guttural pronunciation.



THE LONDON STONE, CANNON STREET, LONDON.

after which it branched to Berwick, due north, and Shields, north-east.

The name of Watling Street is much the best known of any of them, but the second trunk road ran from St. Davids through Carmarthen and Builth to Conway by one branch, and to Usk (Caerleon), and then to Bath and London. A third "Fosse way" ran from Lyme Regis through Bath to Leicester and Lincoln, and thence by two branches to the Humber and to York. And yet another started from London through Chelmsford to Colchester. Every part of the country, from Cornwall and St. David's, Berwick on Tweed, Colchester and Dover, and the Humber was thus connected with London as its heart, the centre of which was London-stone.*

Colonization of England—not from it.

(The Saxons, Danes, and Normans were all colonizing people, but we shall best appreciate their character as such by studying their influence upon England, which they were colonists *to*—not *from*.)

We do not always realise the obligation we are under to other nations for the colonization of England herself; and the close of the period of Roman colonization, when that power removed from England, is an appropriate opportunity for surveying briefly the nations which have colonized us, and the debt that we owe to them at the present day.

The first historical occupants of England, from whatever source they may have sprung, were Celts, under whatever sub-division they may be classed, and, under the title of Britons, their country was subjugated by Rome, though they themselves were not exterminated or

* There are many other Roman roads in England, but not connecting very distant places, and they have been omitted from the map to avoid crowding.

dispossessed universally, but were allowed still to retain their old lands and houses. English people are in the habit of thinking that the Britons were expelled from all England except Cornwall and Wales, and have left no traces behind them; but when we look at the mountainous, and at that time somewhat inaccessible region of the West Riding of Yorkshire, we find there a permanent record of their habitation in the name of one of the most lofty of the Craven Mountains—Pen-y-Gent (or Gwent), a purely Celtic, British name. “Pen,” the hill; “y,” in the; “Gwent,” fair open country, which accurately describes the situation of the hill as shown in the Ordnance Map of the West Riding of Yorkshire.

Passing due west, we come upon a long range of hill, separating Yorkshire from Lancashire, and called Pen-dle Hill—a curious mixture of the former British name in the “pen,” a hill, and the Saxon addition of “hill,” apparently in ignorance of the meaning of the old name, which was still retained. Towards the south extremity of this long hill are “Pendle-bury” and “Pendle-ton,” not far from Manchester, again exhibiting the mixture of the ancient British “pen” and the succeeding Saxon “bury” or “ton,” both having the same meaning of “town.” Extending northward from this hill to the Cheviot Hills of Scotland, a long chain of mountains, which used to be called the “back-bone of England,” runs down through Cumberland, and, skirting Stockport, ends at the Peak in Derbyshire. This range appears in physical maps of England as the “Pen-nine Chain,” and occasions the necessity for the railway tunnel a couple of miles long between Stockport and Yorkshire, and used, in the old coaching days, to demand that all the outside passengers on the stage coaches must descend to walk *up* the mountain side, and, on resuming their seats at the

summit, trust to Providence (or, as the coachman put it, "to *my* skill") to make the descent in safety, which was by no means always accomplished when the road was covered with snow in winter.*

What the Celts or the ancient Britons have contributed to the England of to-day beyond the above names I have been unable to discover. They were followed by the Romans, but their occupation has already been described.

The Saxon Colonization of England.

The Saxons contributed so largely to the formation of the England both of the past and of the present, that we are liable to think they have entirely constituted England as we know it. They brought their useful colonizing characteristics of obstinate perseverance and love of a freehold tenure of whatever land they might become possessed of, as distinguished from the "tribal" land-tenure of the ancient Britons and the Highland Scots in past times, *i.e.*, of the Celtic races generally. Their habits of self-government in their "villages," their "wapentakes," or their "hundreds." Their trial by jury, and many other of the laws of "good King Edward." Their loyalty to their chief or leader, whom they followed as long as they thought proper, providing he was a chief of their own choosing or approving. No "King by divine right" in the Stuart sense, or by feudal right in the Norman sense, was their conception of a chief to be followed, and such principles as these, and the Saxon names of places throughout the whole of England, are what these colonists have contributed to the England of to-day.

* To these may Penrith—"pen," beaded a hill, and "rhydd," red (pronounced "rhyth"), from the colour of the sandstone of which the hill consists on which Penrith stands; and also Ben-rhydding, near Ilkley, Yorks, from "ben" or "pen"; and "rhydd"—free—a large detached rock, with a smaller one near it, that used to be called "the cow and calf."

The Danish Colonists.

We are so much in the habit from early teaching of thinking of the Danes as simply pirates and ravagers, robbing, burning, and then sailing away with their spoils, that we have but a limited perception of how much England is indebted to them as peaceful, valuable colonists and contributors to the national character and welfare. But a careful examination of the map of England shows how wide and permanent was their industrial occupation of this country, which must now be considered.

There are in England about 1,400 names of villages, towns or cities which are purely Danish.* The name of every place ending in "by" shows it to be Danish, as it is Danish for a cluster of houses or a town, such as Whitby, Grimsby, Selby, Kirkby, Appleby, Crosby, all in Yorkshire, Lincolnshire, or Westmoreland. "Thorp" or "thorpe" is the Danish name for a village, and "thorps" abound both north and south of the Humber. "Vic" is the Scandinavian or Danish term for an inlet of the sea, and again the name is met with under the modified form of "wick" or "wich" throughout the east coast of England, Scotland, and Shetland; in Har-wich, Ips-wich, Nor- (or North) wich†; Berwick, Wick (Scotland); Ler-wick, and Hills-wick (Shetland), and, last to be mentioned, in York! This city was called Eboracum by the Romans, and the

* Nearly all these names are in the portion of England north of the Trent and south of Northumberland. There are about 200 "bys" in Lincolnshire, 160 in Yorkshire, nearly 70 in Leicestershire, and only about 170 in the remainder of England. In Yorkshire there are at least 95 "thorps," and in Lincolnshire 63, and in Norfolk 24, and about 100 in the remainder of England. On looking at the map it is evident that these Danish places are commonly near the coast, or in the neighbourhood of rivers running into the Humber or its tributaries, and their special frequency in Lincolnshire is doubtless due to the proximity of the county to Jutland, from which the Danes largely came.

† The tide came up to Norwich in the 14th century.

archbishop still signs his name "W. D., Ebor." Whence then its present name? The Danes had possession of it so long that they changed its name to "Jor-vic;"* "Jor, on an inlet of the sea"; which in the natural course of changes became abbreviated in pronunciation and spelling to the name it still retains of "York." But how can it be said that York is on an inlet of the sea? Up to the date of 1754 the tide rose daily to some ten miles above York, but in 1755 a weir was built across the Ouse at Naburn, four miles below the city, which shut off the tide, but (by means of a lock) permitted boat traffic up and down the river to Selby and Hull. York also indicates its long continued Danish occupation in the names of its streets, the old ones being almost without exception called "gates," the almost universal name for "street" in Norway, Sweden, and Denmark at the present day, in the form of gata, gaten, or gaden. Thus the principal and largest street in York is "Mickle (great) gate."† The great Danish pirate chief, Guthram, has given his name to "Guthram-gate," as it was spelt within my own recollection, but is now spelt "Goodram-gate," "Walm-gate," "Ouse-gate," "Monk-gate," "Swine-gate," "Peter's-gate" (the street leading to St. Peter's Church—the Minster), and numerous others all illustrate the same fact of the long abiding influence of the Danish occupa-

* *Danes and Norwegians in England, Scotland, and Ireland*, by J. J. A. Worsae, a Royal Commissioner for the preservation of the National Monuments of Denmark. Murray, 1852. This Danish authority gives no explanation of the syllable "Jor" or its spelling, but Mr. Platnauer, keeper of the York Museum, has written to me that the name of the city was Eurwic (which is found in *Domesday Book*) or Yorewick, i.e., the town on the River Ure or Yore (a large tributary of the Humber) at its junction with the "Vik", the inlet from the sea. This gives a natural explanation of the meaning of the "Jor" as well as of the "Vic" of the Danish antiquarian.

† The "gates" which gave entrance into the city were closed at their ends by strong fortifications that "barred" the entrance of an enemy, and were thence called "bars." Thus *Micklegate* is closed by *Micklegate Bar*, *Walmgate* by *Walmgate Bar*, and so also in one or two other cases.

tion, and it must be remembered that the Danes, although at first known in England as pirates only, became converted to Christianity, and left the impress of the change by the names of the streets. Thus, "Kyrko-gata" (Stockholm) and "Kirk-gate" (Leeds and elsewhere) are identically "Church Street;" and "*Kirk-by*" in Westmoreland, and "*Cros-by*" on the shore near Liverpool, are further illustrations of their adoption of the Christian faith, and their settlement as colonizers in the strictest sense in this country.

Results of the Danish Colonization.

The Danes not only left the names of so many towns and villages in England as the record of their colonization, but they added their maritime and adventurous spirit to the character of the people; and thus, by intermarriages, &c., eventually lightened up the stolidity and broke in upon the stay-at-home disposition of the Saxon inhabitants and made the English the seafaring nation that they now are.

The Norman Colonization.

In the sense of "dwellers," the Normans were true "Colonists," but not in the sense of "cultivators," for they came over to England only in limited numbers and as conquerors, the cultivation of the land being still left to the Saxon element in the country, which eventually absorbed its Norman conquerors, and made them into genuine Englishmen.

The essential features of their *system* of colonization were the introduction of the feudal system of land tenure and the erection of strong castles—not towns or villages—throughout the country, by means of which, and their armed feudal followers, they kept their surrounding

domains in subjection. To a great extent they changed the nature of the land tenure they found in England; and, as the Saxons had displaced the Celtic tribal system of land-holding by their own institution of independent freehold tenure, so the Normans largely displaced this and substituted the feudal tenure derived from the King, which holds so large a place in English land-laws to the present day. They introduced the Norman-French language into all legal proceedings, and all Acts of Parliament were *written* in French until the time of Henry VII,* and to the present day the Queen gives her assent to a Bill by the French, "*La reine le veut*," or she rejects it by the courteous answer, "*The Queen will think about it*"—"la reine s'avisera."

The Normans also introduced the feature of military as distinguished from naval activity, and scarcely any period can be mentioned for centuries in English history in which the Norman character and its possessors did not take an active part in Continental or crusading wars.

They also brought into England refinement and arts of various kinds which had previously been strangers here, and the chivalric courtesies which accompanied knighthood and the training for it, added graces to life which were not without their charm.

*Result of these combined Colonizations in forming
the present English character.*

The direct influence of the Celtic occupation upon English character is very difficult to appreciate. To the Saxon element we may attribute the tenacity which causes an Englishman never to know when he is beaten, and occasions his enduring attachment to the home and lands of his ancestors, making him so difficult to move, and

* Though they were *printed* in English from the 12th Edward IV.

keeping English families in the occupation of the same farms from generation to generation, for centuries in many instances; and which also makes him (when at last he does move) the patient persevering cultivator of his land in his new home.

To the Dane must be ascribed the seafaring character of her men, and the love of her boys for sea stories and tales of wild adventure, and we may, perhaps, not be far wrong in tracing to the Normans the chivalric courtesy towards an opponent, which is considered essential among military men, and the courtesies of life which contribute so materially to the character of a gentleman.

PART 2ND.—MODERN COLONIZATION, 1497 A.D. TO THE PRESENT TIME.

FROM the Norman Conquest of England in 1066 A.D., and their conquest of Sicily in 1090, both of which events were in an important sense colonization, for they never ceased to dwell in their conquered regions, colonization may be said to have slept until 1497.* Previous to that date the Portuguese had long been at constant war with the Moors in Portugal and the northern coast of Africa, and having at last expelled them, they had slowly sailed for half a century down the west coast of Africa, until, in 1497, Vasco de Gama sailed round the Cape of Good Hope, and thus opened the way by sea to the rich and fertile islands and continents of the east which the Portuguese rushed to secure, to the depopulation of the kingdom by nearly one half as adventurers,† thus becoming the first, in point of time, of modern colonizers.

* Which may without much error be called 1500 A.D., as an easier date to remember.

† Payne's *European Colonies*, p. 46.

Portuguese System of Colonization and its results.

The Portuguese, in coasting down Africa, and in their settlements in the islands of the East Indian Archipelago, and on the coast of India itself, adopted mainly the system of the Phœnicians, but with one or two important differences which eventually led to grief. They went solely for the purpose of commercial profit, not to find homes for a superabundant population, and, accordingly, they settled as a rule only on detached spots, such as Goa in India, or on fertile islands producing spices like the Moluccas, and in their early career they carried everything before them and became incredibly successful. But if they encountered opposition from the natives, instead of following the example of the Phœnicians and trying to make friends, or else leaving the disputed places, they secured their settlement *vi et armis*, and treated the natives with such tyranny as to make enemies everywhere, and when the Dutch shortly afterwards, envying their success, followed them into the east, they found allies everywhere ready to turn against the Portuguese, who lost nearly all their East Indian colonies almost as rapidly as they had gained them.

But the case was very different in their immense colony of Brazil. There they found unlimited space for settlement and expansion, and a soil and climate which favoured the cultivation especially of sugar and many other valuable products; and here they settled and made their homes. But as the climate was unfavourable for European labour, the Portuguese availed themselves of their African possessions to obtain slaves for the cultivation of their Brazilian lands, and also made large profits by selling slaves to the Spaniards, French, and English, who eventually followed them into the West India Islands and other tropical regions there.

So wealthy did they become, and so easy was life for rich men, that many of their fellow countrymen sold their Portuguese possessions at home and bought grants of land on the coast of Brazil or its borders, from the king of Portugal, extending in some cases to 150 miles or more of sea border; and here, surrounded by their slaves who did the work, and enervated by the climate, and also in an important degree at times by intermarriage with the natives, they lost their European energy, and lived in ease and indolence, having no necessity for exerting themselves. They had no share in the government or management of the country, for the Portuguese government never ceased to send out home officials and home governors to make their fortunes in a few years and return home to spend them.

For a century the republican doctrines and the substantial prosperity of the United States of America were indoctrinating the Brazilian natives, the half breeds, and the descendants of the old Portuguese settlers, and having no tie of benefits received from the mother country, of prospects from her of usefulness or power in the Brazil of their birth, or financial benefit to themselves from free trade with the world, which the mother country tried to prevent for her own benefit, the country was ripe for revolution, and in 1825 A.D., Brazil became a totally independent state, and was permanently lost to Portugal, after having been connected with her as a colony for nearly 350 years. Thus Portugal, which was the first colonizing country of Europe, and seemed likely to be the greatest, is now a state almost without power, except the traditions of former greatness, the name of possessions in its old slavery districts in Africa, and the consideration which the stronger powers of Europe are still willing to concede to a country which has no longer the strength

to cultivate its resources, and has allowed them to lie fallow and unutilized for generations past.

Spanish Colonization and its Results.

Spain has scarcely professed to be a colonizing nation, for she has not attempted to find lands and cultivate them as homes by her own hands for a redundant population, except in the cases of Cuba and Porto Rico in the West Indies, the real work in her colonial empire being done by the enforced labour of the subjected nations, or of imported slaves. Her whole object in dealing with her great American possessions of Mexico and Peru was simply to extract from them all the gold and silver and other mineral riches of the countries, to find lucrative berths there for her high-born citizens at home, to keep the government of the countries entirely under her own control, and to increase her own wealth, if possible, by forbidding her colonists to trade with any other nation but herself, from whom they must buy everything, and sell to her alone, instead of looking out for better markets. Here again, every natural tie of obligation to the mother country was systematically cut off, and the consequence was that both Mexico and Peru rose up against her authority and claimed independence, and succeeded in obtaining it; thus leaving this great country—once the dominant power in Europe—now a state without a position among the “Great Powers” of the Continent, and with only Cuba, Porto Rico, and the Philippine Islands as the residue of her former greatness.

French Colonization and its Results.

When we turn to France we meet with a nation which appeared at one time to occupy a prominent and promising position as a colonizing country, but which has not

proved to be successful in that aspect; and the enquiry naturally arises as to the causes of her failure and her prospects in the future, for she got the start of England both in North America and in India, and she is now making great efforts to regain her former high position as a colonizing country.

In the first place, the eminently happy condition of France itself seems to furnish a valid reason for failure. "Why," Frenchmen may well ask, "why should we leave our native homes and seek for foreign lands? We have at home everything that the world can give. An unrivalled climate and a fertile soil, producing corn and wine, oil olive and honey, sugar, and mulberry trees for silks the envy of the world, and also sheep and cattle. A seaboard producing what fish we desire, and no pestilential swamps like so many other countries. Mountains and well watered plains, and a natural temperament for enjoyment of all these things that so many other peoples do not possess. We have no redundant population exceeding our boundaries, no *triste* skies driving us to seek for brighter homes, and no Danish blood coursing through our veins, and compelling us, whether we will or not, to brave the stormy seas and follow the example of former Viking ancestors. Why, then, should we emigrate?" Why, indeed!

But Frenchmen did emigrate to Quebec and Lower Canada in the time of Louis XIV, and to the West India Islands at a later period, and to India later still. No doubt; but why? To escape from religious persecution as Huguenots at home, and also, in the mind of the "*Grand Monarque*," to rival the colonizing extension of the English in North America, and the Spaniards and Portuguese in South America. To obtain supplies of sugar and other comforts of life from the West India Islands, which France at that date could not supply, and, at a later

period still, to escape from the horrors of the French Revolution of 1789. But these grounds for emigration have long ceased to exist, and what France gained in the first instance by war, she afterwards lost by the chances of the same game of hazard, and for nearly a century she ceased to be colonizing country, or a possessor of formerly established colonies.

At length, after centuries of piracy by the Algerines, almost her neighbours on the Mediterranean, France completely subdued them, and in 1847, barely fifty years since, after a contest of seventeen years, annexed the country as a colony under the name of Algeria. But so far from becoming a tempting *home* for surplus Frenchmen to *cultivate* and *dwell in* for future generations, it has been almost exclusively a military colony, made, as far as possible, to resemble Paris in its cafés, places of entertainment, and its other varied interests, and felt to be only a temporary residence, like India to the English of the present day, who look upon themselves as being, and are in reality, only birds of passage there. While, therefore, English colonists would have made farms and cultivated ground for permanent settlement in all the fertile country surrounding Algiers, the French have left it almost uncultivated until very lately, and it remains to be seen whether it will ever become a source of profit to the home country, or a prosperous *home* for French colonists in the future.

Stimulated by the memories of past times, and by the sentimental feeling, which is not unnatural, that the possessor of broad acres must necessarily be rich and powerful, whatever the character of the lands may be—whether mountain or forest, moor or swamp, fertile plains or barren deserts—France of late has sought to extend her colonial empire in the distant regions of Tonquin, Siam, Madagascar, and the almost unexplored portions of

north Africa; and while it may be hoped that her commerce may be extended through these acquisitions, it remains open to serious doubt whether, *as she does not require them as homes for a redundant population* (and her home population is not an increasing one), they will not prove costly luxuries rather than profitable investments for her people. Whether, indeed, her "System of Colonization" is likely to have a permanently profitable result.

German Colonization.

Germany, as a nation, can scarcely be said to have had a *system* of colonization: for, until 1870, she was little more than a name, not a consolidated community. The Germans, as individuals, have proved good colonists when going to other already established countries, of which they have generally preferred the United States of America. Here they have come under the overpowering influence of the magnitude of the country, and the indescribable weight of the American character, and have become absorbed into the general community, becoming themselves Americans—their advent thus contributing one element towards the formation of the future composite Americans, who will be composed of the old American settlers and the modern English—of Germans and Celtic Irish, with scarcely a sprinkling of French, and practically nothing of the decaying North American Indian, who seems doomed as a race to disappear from the earth in the presence of the multiplying and (by some apparently uncontrollable law of races) exterminating Teutonic constituent of that future great people.

What the Germans will accomplish as a nation of colonizers, instead of simply individuals, now that they have gained such large space for expansion in Central Africa, remains yet to be seen.

Swedes as Colonizers.

The Swedes make admirable individual colonists, for they are hard-working, honest, and physically strong and healthy. Agriculture under constant difficulties has been their experience from childhood—and their surroundings make it necessary that they should be able to turn their hands to everything—which also they do, and they do it well. “Sloyd” is their watch word; which means, “intelligence of design,” and “accuracy and perfection of workmanship.” It has been sometimes said, in mixed playfulness and earnest, that their only fault as a nation is that they are “too contented.” Therefore they stay at home instead of pushing abroad, and even when they are abroad they are too easily satisfied, and are not for ever craving for something more. But do not let an Englishman, who “is never happy unless he is miserable,” throw a stone at them on that score, though it is perhaps an illustration of their want of push, that the only “colony” they have possessed is the little island of St. Bartholomew in the West Indian group, and this they have been trying to sell since 1868, but without as yet having found a purchaser.

System of Dutch Colonization and its Results.

From all the European nations thus far described, the Dutch must bear the palm as colonizers. Previous to the War of Independence by the seven united provinces against Philip II of Spain, the Dutch had not been heard of as a nation; but after the successful conclusion of that war, the Netherlanders (or as they began to be called, the “Dutch”) set to work with indomitable energy to repair their late losses and create a new career for themselves. Their ships had already proved their value and vanquished

the Spaniards, but they set to work to improve and multiply them still more, and having overcome the Spaniards at home in Europe, now entertained the ambition to beat the Portuguese also in the far-off East Indies.

Their *system* of colonization was to raise the necessary capital and diffuse an interest in the success of their undertakings by forming joint-stock companies from every port or mercantile community in Holland; and freighting their ships with produce wherever it could be obtained on the most advantageous terms, they started with the object of disposing of it wherever they could obtain the best prices, and then dividing the profit among their shareholders. They *originated* the system of allowing their shares to be bought and sold in the open market, and many were thereby interested in the success of their schemes who might not necessarily be Dutch themselves. It was among these various shareholders that the profits were divided, not being absorbed by any single monopolizing body, such as the state, or by an individual merchant.

Having been themselves the victims of cruel religious persecution by Spain, they held aloof from all religious controversies with the people among whom they traded in the east, unlike the Portuguese, who had made irreconcilable enemies among the Mahomedans of the east or the other religious communities they encountered, and thus they found friends where the Portuguese had made enemies. Within an almost incredibly short period they had dispossessed the Portuguese of nearly all their eastern colonies *that were worth having*, and established themselves with such firmness that they are still successful traders and holders of many of their old possessions. But an essential weakness in their system hindered their progress beyond a certain point. "Will it pay?" was always the

first consideration. "If it will not, then let it alone." And since Portuguese Goa did not promise to pay, Portugal was left in possession. As the Cape of Good Hope was not a lucrative station, they did not waste money in defending it, and it came into the possession of the English, as did also New Amsterdam in America (now New York), the prospective value of which they could not estimate two centuries in advance.

Thus it appears that their system of joint stock capital, and thereby of multiplied sources of interest in the success of the work, their unshackled freedom of trade, and their fair and gentle-handed treatment of less powerful people, combined with their indomitable perseverance, raised them to the summit of colonial power until about the middle of the seventeenth century. At that time the English East India Company was formed, and entering into active rivalry with the Dutch, it eventually outstripped them, and gained continually increasing power in the East, while the Dutch remained stationary or declined, although they still continued to be a great power there. Since that period they have substantially held their own; but not going out into unoccupied regions to cultivate them by their own poor or superfluous population, they have not gained in power while the English have done so. It is to be noted that one reason why the Dutch have not become agricultural colonists for the benefit of their poor or redundant population is that they have no poor, and their population is not a materially increasing one.

Systems of English Colonization and their Results.

The systems under which colonization has been carried on by the English, and the changes made in them, have been numerous and important, but two features seem to run through them by which they are distinguished from

those of the other European nations we have been reviewing, and which appear to have contributed eminently to their success, even if they have not been the main cause of it.

The first is that those who have left their native home to become colonists, whether well furnished with means or driven forth by poverty, have all gone out with the intention of *working* themselves instead of depending exclusively upon the labour of others ; and the other is that they have all gone out imbued with the ideas of self-government, which have been apparently inherited from their Saxon ancestors and have become a second nature from centuries of habit in the England they have left behind. At the same time they have retained a loyal sentimental attachment to their mother country within certain limits that did not, however, admit of being too far strained.

The origin of their goings out have been widely different ; for while many have been adventurers in search of gold, or fishermen, fur hunters, or the like, others have been transported from their country as evildoers, while another important proportion, taking wealth with them, have gone out to make it still more by assiduous industry. But by far the largest proportion have left home under the pressure of poverty, and have eventually become the mainstay of the success of the colonies. In this picture we see every rank of society is represented, and all have contributed alike, by *work* and by *self-reliance* and intelligence, to make the English colonies what they are.

Many mistakes have been made in the systems adopted, and their failures have proved to be useful lessons for the future ; and, in some essential respects, they have produced changes in the relation of the mother

state towards her offspring that have been hard to submit to on her part, but have been essential to future prosperity on both sides.

English colonization did not commence in earnest until the reign of Elizabeth, at which time the success of the little English ships over the Spanish Armada had inspired invincible confidence among English sailors; and the riches to be obtained by waylaying and seizing the Spanish galleons, freighted with gold from America, afforded a stimulus to continued adventures on the sea. Englishmen had indeed visited the courts of Cambay and China in the name of Queen Elizabeth even before the defeat of the Spanish Armada, and a curious illustration of this is still in existence in a coinage issued by her, resembling in value the Spanish coins which were in use in the East, in order, as she put it, "that her name and effigies might be hereafter reputed by the Asiatics, and she be known as great a Prince as the King of Spain." *

Cabot also had discovered St. Johns and Newfoundland in the reign of Henry VII, in 1496, and taken possession of them in the king's name, but no attempt to colonize them was made until long afterwards; and it was not until Elizabeth's reign that, under Sir Walter Raleigh, seven different expeditions were made, first to Guiana, which was believed to be rich in gold, but proved disastrous, and afterwards to America, where he tried, but again in vain, to settle a colony in Virginia, so named by him in honour of the Virgin Queen. It was not, however, successfully colonized until the time of James I, during and after whose reign English colonization spread slowly but steadily along the coast of North America and Labrador

* *Coins and Medals*, p. 125, Stanley Lane-Poole. Spain had intercourse with China through the Philippine Islands in the reign of Charles V. The coins are engraved in Rudin's *Annals of Coinage*, vol. iii, pl. xv—5-8.

into Hudson's Bay, nearly all the islands, capes, and bays in which are named after James or Charles I, or his wife, Henrietta Maria. These were all *industrial* colonizations, and there were no indolent millionaires among those who carried them out, like the Spanish hidalgos of Mexico, or the holders of enormous fiefs in Brazil among the Portuguese.

Along the more genial portion of the coast, from Boston southward, the English colonies were slowly but steadily extending from the reign of James I to that of George II, but, during this period, another agency in colonization was brought into operation, for the Portuguese transported their criminals of all kinds to Brazil as enforced labourers, an example that was followed by England, which sent out her criminals to the West India Islands, then called the Plantations, in the reign of Charles I. And not her criminals only, but many who would not comply with the theological requirements of the government of the day in this time and that of Charles II, in whose reign an act was passed, "that if five or more Quakers should assemble for religious worship, their first conviction should involve imprisonment for three months; the second for six months; and the third, transportation to any of the king's plantations." — 13-14 Charles II, c. i., s. 1, 11.*

Previous to this, Cromwell had sent out as slaves to the West India Islands many of his Irish and Scotch prisoners, seven thousand Scotch prisoners being sold at one time to the West Indian planters after the battle of Worcester; and many similar transportations took place after the "Risings" in 1715 and 1745. These transportations were thought at the time to be a great boon to the

* The preamble of the Act assigns as the reason for this severity that Quakers objected to taking oaths, and objected also to the *established* form of religious worship, and were therefore "dangerous" citizens.

plantations, as they supplied the labouring power that was indispensable in that stage of their progress for bringing them into cultivation, labour which was at that time largely obtained from negro slaves purchased from the Portuguese. The men themselves were not criminals in any ordinary sense. The seven thousand prisoners were prisoners of war, and, therefore, trained soldiers, not culprits; and many, if not most of those transported for religious nonconformity, were men of exceptionally high religious and moral character, who contributed materially to the future strength of the community. It must also be borne in mind, that in the more modern times of transportation to Australia and elsewhere, many of the convicts were sent for what are now regarded as comparatively trivial offences. Poaching, when detected, involved almost certain transportation, and many other very minor offences were cause for the same penalty under the cruelly severe penal laws of the Georgian period. Such men were often good agriculturists; and when their period of servitude expired became useful and valuable members of the community, and not unfrequently rose to positions of wealth and influence in the boundless room for energy and success in their new country. A signal instance of the value of this element in the new country was the experience of the Swan-river Settlement—now western Australia. The colony was originated under glowing expectations, and the home government contributed considerably to the expense of the poorer emigrants, while men of means were also attracted by the accounts given forth, and the very large, almost immense areas which were sold to them by the home government for merely nominal sums. These men took out with them character, intelligence, and agricultural implements, and everything requisite for a successful future, *except sufficient labour*;

and the consequence was that they were unable even to find the lands allotted to them, for there were no roads. When found, there were no means of transport for conveying their ploughs and other machinery, or for cultivating enough ground to supply food for their families. They were in consequence reduced almost to famine when the supplies they had taken with them were exhausted; nearly all left the colony who were able, and those who did remain, petitioned the home government to send them out two or three shiploads of convicts, the least skilled of whom might still be able to make roads, while those with any knowledge of agricultural work would save the rest from death by starvation.

With such experience before us, it may possibly become wise at some future time for the home nation to consider whether selection may not be made among those sentenced to penal servitude, and, where the crimes have not been accompanied by violence or by other absolutely disqualifying circumstances, to judge whether new *homes* for the offenders themselves in the future, as well as relief to the penal stations at home, may not then be found by the renewal of a modified system of removal to some favourable place among such islands in the Pacific as may in the course of time fall into the hands of the English, and be called "Morum Sanitoria" (moral health restorers), or by some other name unassociated with crime.

We have of late years sent our young offenders to industrial schools and reformatories, instead of to prison, on the principle that their misdoings were in no small degree due to ignorance, in consequence of their unfavourable surroundings often from birth; and may we not wisely send even men or women, who are perhaps not less ignorant or more happily circumstanced, to new and more

favourable surroundings, to give them also a hope of a new and better life in future.

In the meantime, however, it is our present province to examine the "Systems of Colonization" already adopted by England, "and their results," and the result of the convict transportation system was that, although it had its uses at first, or when there were but few if any free settlers, yet as the latter increased, they denounced being contaminated by a continued influx of criminals from home and, eventually, in 1849, the opposition to it became effective in New South Wales. New Zealand refused to allow their admission from the first; and the Cape of Good Hope refused to allow a ship load of convicts to be landed there, and actually sent them back again to England. In 1865, exactly 30 years since, the system was finally abandoned by the home government, and has not been attempted since.

Another important feature in our systems of colonization became prominent in the West India Islands along with the admission of convict labour. That was the practical granting of bounties by the home legislature to the produce of the islands. Previously to this, one great element of success in English colonies had been the freedom with which they traded with whomsoever and wherever they pleased, so that wherever a profit could be made the colony made it, and the whole nation in a degree profited as well, by the reception of foreign articles on terms as favourable as possible, and by the employment of home labour in many ways in producing the articles used in exchange. But in order to encourage the new industry of producing sugar, and coffee, &c., in the West India Islands, a duty, which was really prohibitive, was put upon such articles from any other country whatever, while the plantation produce was admitted comparatively duty free.

The nation therefore, as a whole, paid much more for those necessities of daily life than it would have done, while the profit really went into the hands of a few wealthy planters in these islands, or their mercantile houses at home, who employed but little English labour, and made no practical return to the purchasers for the extra prices paid. Parliament eventually saw the evil results of this upon the nation at large, and equalised the duties, thereby admitting the articles from other quarters. This resulted (along with other causes) in destroying the great prosperity and riches of these islands, and they have been of comparative insignificance since then, though commerce with other countries has largely increased, and the nation at large has so far benefited.

The system of fostering young industries in our colonies has thus been one of the experiments made in our "systems of colonization," and it has been regarded by the nation as a failure, and has been abandoned in consequence on the general principle which has run through our colonial systems from the first, that a colony or an industry that has not strength enough to support itself is not worth keeping alive artificially, and had better be allowed to die.

An attempt to illustrate or even to mention every form of experiment that has been tried in English colonizing systems would require a volume, not a paper, but one, at any rate, should be alluded to as having proved such a general failure, either financially or socially (from the great South Sea Bubble of Queen Anne's time to the East African Association of our own day), as to furnish a signal-post of "DANGER" for the future, and that is the formation of companies for the origination or management of a colony which it is hoped to make successful. Such companies, however beneficial they may have been in the

beginnings of colonies, have either failed completely, or have eventually stunted their growth by depriving the European customers of the advantages of competition. Out of fifty-eight companies forty-six have failed completely, and eight have been suppressed or have surrendered their charters,* leaving *four* which have proved eventually successful, the experience applying to every one of the European colonizing countries.

One *change* of the highest importance has been made in the English colonial system which remains still to be mentioned before summing up the "Results of the English Systems," and that has been the granting of substantial independence and self-government to our largest colonies, with the retention of little more than the sentimental attachment and connection with the mother country that we saw in the ancient form of Greek colonization.

Englishmen have always been tenacious of the liberty to govern themselves and manage their own affairs, and have been jealous of centralised official control, and, while not unwilling to comply with a desire for assistance from home as a request, they resent it as an order. This characteristic was fatally exemplified in the case of the former "Plantations," now known as the United States of America. For many years intercourse between them and England was very rare, and almost from their commencement England had been so much absorbed by her own affairs—first in the Union with Scotland in the reign of James I; then in the civil disturbances and wars of the time of Charles I; afterwards in Cromwell's home and foreign policy; then in the Restoration and the subsequent Revolution in 1688; and after that by the Scotch risings and the conquests in India—that the Plantations had been let severely alone, and had been allowed without

* Payne's *European Colonies*, p. 101.

help or hindrance to develop their strength and grow up to political manhood. England, meanwhile, remained substantially ignorant of their growth, and thought of them still as of children to be ordered about, not as of men and fathers of families themselves. Accordingly, in 1764, the British Parliament laid a direct tax upon them in the shape of a Stamp Duty, their indignation at which resulted in the War of Independence, and England lost what was practically at that date her whole colonial empire. by their successful conclusion of the war in 1782.

Untaught, however, by this lesson, England again dared and nearly sustained a repetition of it in the case of Canada in 1837, the year of the Queen's accession. Quebec and Lower Canada had been conquered from France in 1759, and English settlers from home, and also loyalists from America, had multiplied there and in Upper Canada, and had become a great power, of which the home government however seemed to have remained profoundly ignorant or indifferent. The government of the two Canadas was in reality controlled absolutely by the colonial office at home; and although the settlers in Canada did elect the House of Representatives, which we may call the lower house, the home government appointed the executive council, or upper house, and all the government and other officials, and filled from home every post of honour or profit. Whatever changes the lower house passed in favour of more self-government, the upper house threw out, while the home government paid no attention to the remonstrances of the lower house until, at length, the Canadian representatives struck, and voted no supplies. For four years no money was voted, no official salaries could be paid, rebellion against England was openly preached by popular agitators, and the whole country was ripe for rebellion and for throwing off

the connection with England, as the United States had previously done. At this time a trifling police fracas with a Canadian fired the train of rebellion, which spread rapidly through the country, though the actual fighting or bloodshed was insignificant. On hearing of it the English government at once sent out ships of war and troops, which speedily suppressed what little actual fighting there was. About a dozen of the so-called rebel leaders were executed, one hundred and forty-one were transported to Australia or elsewhere, and almost the first that English people (as distinguished from the government) knew of the event was seeing a body of these "convicts" passing through the streets of Liverpool on their way to the convict ship. This occurred five years after the passing of the great English Reform Bill; and the indignation was so profound, both in the country and in Parliament, that the government immediately sent out Lord Durham, one of the most eminent statesmen of the day, with absolute power, not only to enquire into the causes of the rebellion, but to make whatever changes he might think were called for in the mode of government.

The result was that he almost immediately granted a general amnesty, and sanctioned the early return of those who had already been imprisoned or transported, and he gave to the Canadians substantially everything they had previously demanded in vain. The government nomination of the upper house was abolished, and it was in future elected by the Canadians, as well as the lower house; and the executive government in Canada became for the future responsible to the Canadian Parliament, as the home government is to the House of Commons. The Governor is still appointed by the Crown, whose representative he is, and he discharges much the same functions as the Crown at home, having no direct political

power, but exercising similar indirect influence with the court at home, ceremonial and social, and unconnected with direct party questions, but of such benefit to the community at large as our own Queen's sovereignty at home. Such was the origin and foundation of so-called "Responsible Government" in that colony, which was afterwards extended to Australia, the Cape of Good Hope, and New Zealand; and since that date Canada has been one of the most loyal and attached colonies that a monarch could desire to possess.

There are still several colonies, some of which—such as Gibraltar, Malta, and Aden—are almost entirely for military purposes, while in others—such as Ceylon, Natal, Jamaica, and Guiana—the coloured natives are so preponderant in number, or the place is so poor, that the government could not be entrusted to them, or the expense of maintaining it would be too great. In these cases the Crown appoints a Governor, who does really govern, sometimes on his own judgment, and sometimes assisted by a council appointed by himself or by the home government. The Crown Colonies are ruled according to the judgment of the Governor and their particular circumstances, but the colonies with responsible governments make their own laws, and fix their own customs and taxes, support their own military for their own defence, and do in short almost everything except declare peace or war, or make alliances with other powers, whether friendly or not; but they are still dependent upon the British navy for the defence of their coasts, towards the expense of which they do not contribute anything.

BRIEF SUMMARY.

After the review we have now made of modern colonizing systems, we are perhaps in a position to enquire in a

spirit of fairness into the predominating causes of their success or failure, and I think that we shall find them to be the following.

Spain sent out her adventurers, not to work themselves, but to appropriate the treasures already accumulated by the work of their predecessors—the civilised kingdoms of Mexico and Peru; and when real work had to be done (as in the mines), it was done by the enforced labour of slaves, not by themselves. They also intermarried with the subjugated races, who were inferior to themselves in physique and mental calibre, and as a mixed race they degenerated, and became even less capable still of actual work, and less disposed for it than they were while pure Spaniards. They allowed the colonists no share in their own government, and they failed as colonists.

Portugal, in Brazil, failed from the same causes as Spain in Mexico and Peru; and in their Eastern possessions also, in consequence of having no possession of anything beyond their sea ports, and having no fleet to defend them. Their religious intolerance also made enemies instead of friends of their neighbours, and they failed as colonizers.

French.—They gained many of their colonies by the sword, and lost them by the same weapon when their fleet was gone; and the colonies they have since acquired have been mere trading posts or military stations rather than agricultural colonies for building up homes for future generations. In their intercourse with the natives they have been friendly; but the North American Indians of Canada were not the people to raise future generations of an elevated stamp, and the very courtesy of the French temper has thus been a source of weakness rather than of strength. They have also looked to the mother country

for direction rather than relied upon themselves, and have still regarded her as their real home, rather than cherished the new homes they have made for themselves ; and they have *not proved permanently successful* colonizers.

Dutch.—They have been a strong *working*, self-reliant, and home-cultivating people, and also an agricultural and pastoral, as well as a trading nation. They have been tolerant in their religious relations with their neighbours, and they have not enfeebled their race by mixture with others lower than themselves in the scale of nations, and they have been *successful* colonists.

English. — Can an Englishman form a just and impartial estimate of his own race? Perhaps not ; but the attempt must be made. First, perhaps, of all, he is a *working* being. As Trench has put it amusingly in his lectures on “ words,” the Englishman’s salutation to his friend is “ How d’ye do ? ” Not that he thinks one jot about the answer, but “ do ” an Englishman must, as a matter of course, and the only question therefore is, “ *how* ” he does. Next, he is a home-loving agricultural being, and therefore his great object is to make a freehold, permanent home for himself and his family after him. He is self-reliant and never knows when he is beaten, and therefore he overcomes early difficulties. He is accustomed to be self-governing, and, therefore, he adapts his rules for the community to the circumstances around him, while he is also a law-abiding citizen from his Roman descent and training. He shrinks from mixing his blood with that of what he thinks to be inferior races ; and while on the whole he tries to behave justly to them, and does not take active means to remove them, yet by some hitherto unexplained law they seem to melt and disappear wherever an Englishman plants his foot. He hates to be

called "religious," which in his ears sounds like "goody-goody," but he tries upon the whole to observe the decalogue; and the sequel of all this has been that he has so far taken possession of much of the previously unoccupied world and peopled it; and what was previously occupied he has (as he thinks) improved. At any rate he has it, and the future must prove whether the qualities we have attributed to him are those which will keep it, or whether he also will some time degenerate from riches, pride, and vain glory, and sink down as so many nations, even great ones, have done in past times — which may Heaven of its goodness forbid.

RECORDS OF THE JEWS IN ROME, AND THEIR INSCRIPTIONS FROM ANCIENT CATACOMBS.

By B. L. BENAS.

PART I.—FROM THEIR EARLIEST SETTLEMENT TO THE PERIOD OF THE FLAVIAN DYNASTY.

WHEN I stand before such monuments as the Tower of London, or the walls of Chester, I cannot help mentally expressing a wish that the stones might become vocal, and echo some of the phases and incidents that have occurred since the day they left the quarry to become mute witnesses of history. So I felt when I watched the demolition of the Ghetto, or Jews' quarter, in Rome. With the carting away of the *debris* there is an end to a district in the City of the Seven Hills full of classic and archaeological interest. It represents an unbroken history and tradition of upwards of two thousand years.

Whilst the present Roman citizens are only Romans from the fact of having been born, or being descended from those who for some generations have lived, in the metropolis of Italy, ethnologically they are so mixed up with Neapolitan, Longobardic, Vandal, Hun, and Gothic, as well as Spanish, Austro-German, and French infusions, that it would require a very powerful microscope to detect any original blood of the Roman of the republic or of the Cæsars. The Roman Jews are the same family unchanged, and identically the same in race, as those that lived on the shores of the Tiber at the period of the

Consuls. They still repeat their Hosanna, Selah, Amen, and Alleluia as they did when they first settled there more than two thousand years ago. If anyone would have dared to tell a Patrician of ancient time that in subsequent ages his descendants would repeat with religious unction what they then called the unmeaning jargon of these tribal Jews, his predictions might have been subjected to the keenest ridicule.

The Roman aristocrats may have looked upon these early Palestinian settlers in their city very much as now a resident in Hyde Park or Belgravia might upon a few Parsees who, though white men, have spiritual traditions differing altogether from those of the commonwealth. Yet the Roman Jew has outlived the Consulate, the Empire, the Vandal and Gothic invasions, the supremacy of Charlemagne, the temporal power of the Popes; has seen the rise of a Rienzi, the Avignon and Roman schism, the Napoleonic kingdom of Rome, the ephemeral Republic of 1848, the Austrian and French occupation, a Garibaldi and a Victor Emmanuel, with Rome once more the metropolis of Italy,—the final result of these changes and vicissitudes being that the political Roman world has to-day approached *him*, and extended him the hand of political equality, brotherhood, and citizenship. Notwithstanding the wear and tear, persecutions and sufferings of later centuries, the Roman Jews are certainly to-day as vigorous physically as any other community in the capital, and according to reliable statistics their hygienic condition and longevity is undoubtedly higher, and they have a remarkable immunity from the distempers of a malarial climate; and although in later centuries they were compelled to inhabit exclusively the most insalubrious and insanitary portion of the city, they have enjoyed average good health, have robust and vigorous

progeny, and are proud, like our Anglo-Normans, of dating back to an ancient period of their history.

I propose to sketch some of the phases and incidents in the life of this interesting colony in the Roman metropolis, not only from the traditional, congregational, and synagogal records, but from the epitaphs of the necrological inscriptions found in the Catacombs of Rome. Some of these, discovered lately, abound in historical and archaeological interest.

The first point we have to determine is how, when, and by what means the people of Palestine first came into commercial contact with the Roman capital.

The earliest authenticated evidence is the mission that Judas Maccabæus sent to the then rising republic, asking for a friendly alliance against the Syro-Hellenes, who were then endeavouring to crush the Jewish commonwealth out of existence. The mission may not have been unlike that in modern times of Benjamin Franklin to the Court of Versailles asking French aid in support of the struggling American colonists. The friendship of Louis XVI to America was no doubt dictated less by an admiration of the political ethics and aims of the Puritan colonists than from a desire to weaken the growing and rival power of Great Britain. So it may have been at that period with Rome. The successors of Alexander of Macedon were expanding the power and traditions of the Greeks to such an extent, and over so wide an area, that for some time it was a question whether the world would become Hellenised or Latinised. Their culture may have been to some extent on similar lines, just as the culture of France and Great Britain are, from an Asiatic point of view, almost identical. Yet, had Hindostan been brought under the sway and political influence of France rather than Great Britain, the current of history would have even-

tuated differently, and a Gallicised India would not be a British India.

The Jews in Palestine were very much favoured by Alexander the Great. He seems to have had a decided partiality for them, their history, and literature. He relieved them from Persian suzerainty, and, through the conquest and destruction of Tyre, opened the way for a more cultured and refined environment. When he founded Alexandria, the Macedonian monarch was keen enough to see that the Palestinian Jews might prove a useful element in the new city, and, inviting a large number of them to settle there, he ensured them absolutely equal rights of citizenship with the Hellenic immigrants. It was there that the Greek and the Jew first began to know each other thoroughly, and involuntarily the virtues and the failings of the two peoples began to act and react upon the individuals of the two communities. The Greek stood supreme in his love of beauty of form, poetry, and music, and in his keen appreciation of the temporary pleasures of life, perhaps from the sensuous and material love of enjoyment for its own sake. The Hellenes possessed that faculty which the French so well express, namely, "*Joie de vivre*." On the other hand, the Jew was a Puritan. His hygienic condition may have been better, his physique was not so showy as the Hellene nor so attractive, but it lasted longer, it stood the wear and tear of the battle of life, and could survive misfortune without the apathy and reaction of despondency. The Jew, too, had music of his own, poetry of his own, and pleasures of his own, but, like the Anglo-Saxon, took them all very seriously. He reflected too much upon the day after the feast; he failed to give himself the *abandon* of reckless enjoyment of the fleeting hour and the never-heeding-to-morrow of the Hellenic Greek—of what the one

people had to overflow the other had barely sufficient. A perfect type of humanity might have resulted in the amalgamation of the two ideals—the cult of beauty, art, philosophy, and pleasure, with the softening influences of chastity, sobriety, and self-restraint.

The influence of the Syro-Greek was not without its effect upon the Jews. In Jerusalem public games were instituted, the use of floral decoration introduced into public worship, the young men and women of good social standing adopted the Grecian attire, painting and statuary formed the luxury of the homes of the wealthy, and, indeed, the then high priest of Jerusalem, Menelaus, became a too rapid convert to Hellenism, which only tended to bring about a violent reaction. There was a sharp division between the orthodox Puritan Jew and the new Hellenising and reforming Jew. Had these rival instincts been allowed to have fought out their principles *without alien* interference, some compromise might have resulted in a succeeding generation, and the blending of the two schools of thought might have come about imperceptibly; but the Hellenising Jew was in a hurry, and made no allowance for the conservative instincts of the other side, and, to accomplish his purpose with rapidity, the Hebrew Helleniser asked aid from the Syro-Greek to crush his conservative co-religionist by physical force, and to Hellenise him whether he would or not.

Antiochus, the ruler of the Syro-Greeks, delighted to be called in as military occupant, adopted the thorough method, and proposed plucking out the old Hebraic modes of thought by the very root. Deeming the Mosaic Pentateuch and the Davidic and other psalms the very life of orthodox sentiment, he made the reading of the former and the chanting of the latter a penal offence. Bonfires were kindled everywhere throughout the land,

and every scroll of the five books of Moses, and every psalm or hymn book was brought to the public places to be burned. In fact, Hellenism wanted to stamp out Hebraism once and for all, thoroughly and effectually, by brute force, and to destroy every written record of their so-called Jewish sacred scriptures.

This was undoubtedly a most eventful crisis in the history of the Jews. A violent reaction from Hellenism was the result. Whilst for centuries the religious cult of the Jewish people had been carried on by patriarchal tradition, rather than by rigid adherence to words contained in a sacred book—for, indeed, we find periods when the life and religious current of the nation flowed on without even the knowledge of the existence of a so-called sacred written volume, and the Biblical edition by Ezra was but recently making its way. The moment, however, the alien stranger attempted to forbid the possession of the written records of their people, the faithful went to the very opposite extreme, and considered every edition of the scroll of the law of Moses saved, and every psalm secreted or committed to memory, as a divine message rescued. The women of the Jews hid the parchment scrolls of their cosmic and national lore in the folds of their clothing, and risked their lives over and over again to save what they deemed the holy records of their forefathers.

A community that were hitherto respectful to the folk lore of their ancestry, now assembled in caves and hiding places to hear their traditions expounded and explained, and deemed them holy. The uprising of the Assidean youth of Palestine, led by the Maccabean family, marching from victory to victory with the sword in one hand and their sacred scrolls in the other—moreover, against the Macedonian phalanx, then reputed to be invin-

cible—a mere raw peasantry against Grecian veterans, trained and experienced in a hundred combats, naturally led these young enthusiasts to deem themselves a chosen people and the instruments of some special providence.

The result of the rout of the Greeks and Hellenising Jews, who lacked enthusiasm and patience for the ultimate success of their aims, was that a newly kindled worship of the very letter and text, never known before in their previous history, was initiated by the Hebrew Puritans, and has been engrained in their life for twenty-five centuries. On the other hand, had the Syro-Greeks been successful in stamping out every vestige of Hebraic literature, and making it as lost to the world as the *Book of Jasher* and the *Book of the Wars of the Lord*, the names of which are all that is left, had the Hebrew Puritans not fought so valiantly, nor the Hebrew women been so earnest in leading their children to combat and in saving their literature at the peril of their lives, it is probable that four hundred millions of people would have had in cathedral, chapel, meeting house, and mosque a very different liturgy to that now in use, and Mount Olympus might have been more frequently mentioned therein than Mount Zion. The physical encounter between the Hebrew and the Hellene at this period appeals very much to the philosophic speculation of what might have happened had results eventuated otherwise.

I have been obliged to bring in this phase of history, by way of parenthesis, to lead up to the why and wherefore, and to the earliest record of the official contact between the Romans and the Jews. Most historians favour the idea that the plenipotentiaries of Judas Maccabeus were the first Jews in Rome, and that several members of the mission remained in the Roman metropolis, and became the earliest settlers. True it is that until the rise

of Alexandria as a seaport the Jew, *qua* Jew, was not known in Europe, or as a distinct people. After that they became better known as the Atheists of Palestine, from the circumstance of their refusing to render homage to any visible representation of the deity. From the contempt with which these strangers looked upon the anthropomorphic ideals of the ancient classic world, they were credited with having no deity at all by many of the ignorant masses, though later on, as we shall show, they became a powerful community in Rome, in turn admired, disliked and envied, and sometimes feared.

It is, however, probable that the Jews traded and lived in Rome long before they were officially known to be there, and I will proceed to explain the reason for supporting that hypothesis.

Now, of all modern European nations, the British people have the maritime instinct most largely developed, their ships are in every port, and their Colonies and settlements are to be found in every quarter of the globe, the English language being the bond of union between the *disjecta membra* of the English speaking people. Side by side our island is another island, the people of which have no love for their predominant partners. I allude, of course, to the anti-English and the anti-Protestant portion of the Irish people.

This section would rather worship in the cathedral of Notre Dame, in France, than in a Protestant meeting house, and yet their masses will not emigrate to nations or countries with which they have absolute religious affinities. The Irish emigrate to the United States and Australia in vast numbers, but not to Mexico, Brazil, Peru, or Argentina. In Canada, although the Irishman may dislike the religion of the Protestant Canadian, and is in touch with that of the French colonist, yet he prefers to reside close

to the English quarter. Nearer home, when he leaves Ireland, he prefers to work at the docks in Liverpool or Glasgow rather than in Antwerp, Havre, Bordeaux or Marseilles.

The only satisfactory solution of this instinct seems to be that the Irish cling to the skirts of English speaking colonies and settlements because of the lingual affinity. A common language seems to over-ride, for practical and colonising purposes, many religious and social barriers and even antipathies. Another point I wish you to examine,—when the average Englishman hears of the differences between Original, Primitive, Calvinistic Methodism, or Established, United or Free Presbyterianism, the lines of demarcation may be quite broad enough for the respective seceders from each community, but to an outsider the points of difference between them are hardly noticeable. Thus, by a Mahomedan in Turkey or in Egypt every Christian is termed a Frank, and he scarcely perceives the difference between a Roman Catholic, an Anglican or a Unitarian, they are all the same to him, namely, Franks; and to the eyes of Chinese and Japanese all Christian denominations are the same, they are all Bible men, just as to the Mongolian all sects of Islam are called Koran men. Now, to the Roman world, all Hebrew speaking people seem to have been considered Phœnicians or Carthaginians—the Hebrew language being the tongue of the Phœnician and Carthaginian; so, wherever Tyre and Carthage sent their ships, there the Palestinian Jew probably followed. True, he had no religious affinity with the predominant commercial partner in the Hebrew-speaking world, and he had separate meeting houses for worship; but the Romans and Greeks could see no difference between the Anthropomorphic speaking Hebrew and the Monotheistic one. Therefore, when the Phœnician

traded to Ostia, the port of Rome, it seems natural to conclude that the Jew went along with the Punic vessels, and may have been both at Ostia and Rome long before the political mission we have recorded. It was only when Rome and Carthage became deadly enemies that the Jew had to declare to the Latin world that, although Hebrew-speaking, he was not Punic. Until that period he may have had no desire or interest to dissociate himself from a powerful commercial and maritime community. Similarly it occurred in modern times that the average Russian moujik, when he heard English spoken, as a rule deemed the speaker an "Anglisk," or Englishman. It was only at the period of the Crimean war that the English-speaking traveller from the United States had to declare that, although speaking the same English language, his own immediate people were not at war with the Russians.

We shall now begin with the accepted historical fact of the first official mission, 160 years before the Christian era. Fifteen years later a second mission arrived from Jerusalem to the Latin metropolis, sent by Jonathan, brother and successor of Judas Maccabeus; and again six years later, 615, Roman era, another embassy, by Simon Maccabeus; and then for the first time the Republic entered into an offensive and defensive treaty of alliance with a non-European state.

From this time the Jews began to settle in the Trans-Tiberian district of the metropolis, and no one knows why they chose this particular portion of the capital any more than why the French protestants chose Spitalfields; the French republicans, Soho; the Italians, Saffron Hill; and the Germans the east end of London. According to Valerius Maximus, the Jewish deputations to Rome made some religious propaganda; though in point of numbers

the Jews were as yet a very small community, still their influence seems to have been considerable.

A large number of Jewish captives were brought to Rome by Pompey, and their co-religionists having purchased their manumission, they became libertini or freedmen, and helped to swell the number of Roman Jewish citizens, the community gradually becoming more important and wealthy. Juvenal, xiv, 105, shows us the reason why Jewish captives were ransomed on comparatively easy terms. He says the absurd custom of the Jews, which deprives a master of the seventh part of his labour, owing to the superstition of keeping a seventh day as a day of rest, and the fact that other slaves pretended to be Jews in order to obtain a day free from labour, made the owners glad to rid themselves of these so-called superstitious strangers. It must be admitted that the Roman masters, as a rule, were indulgent, and rarely interfered with the religious practices of their bondsmen; indeed, the Romans respected sincere religious practices and convictions in all people, although they may not have followed the customs themselves; yet in practice they considered that all religions tended towards the preservation of law and order and were conducive to the well-being of the State, providing the cult taught nothing subversive to the ruling powers.

At the time of Cicero the Jews had already become a powerful, influential, and numerically important section of the Roman citizens.

In *Cicero, Pro Flaccus*, the orator maintains that it is an act of courage on his part to withstand the powerful influence the Jews were exercising when he was defending Flaccus from the many charges brought against him; amongst others, one being that Flaccus embezzled the Aurum Judæorum, which, translated into modern parlance,

is that he misappropriated the Jewish "Peter's pence" destined for the Temple at Jerusalem; these amounted to vast sums of money, coming as they did from all parts of the Empire, and were remitted from the capital to the sanctuary of the holy city of the Jews. The minimum contribution of a Jew to the sanctuary in Jerusalem being half a shekel, one denarius and a half. These sums were collected all over the Roman world and elsewhere, and remitted to the Temple treasury. We can get an approximate idea of the number of Jews outside Palestine by the fact that the Temple treasures seized by Crassus—or, perhaps, what was left after a large portion had been rescued and abstracted—amounted to ten thousand talents, or over $3\frac{1}{2}$ millions sterling of our money.

These are Cicero's words: Now respecting the charge of embezzling Jewish gold, that is the very reason why this trial is held not far from the Aurelian Hall. On account of this plaint, hast thou, O Laelius, chosen this spot and sought these people; thou knowest how numerous they are, how they cling together, and what power they have in our popular assemblies. I will speak with bated breath so that only the judges shall hear me. For there are not wanting individuals who would gladly set these people against me, and against those who seek justice, and I will not facilitate the Jews in their machinations. Now, inasmuch as from all the provinces of Italy, vast sums of gold are being sent to Jerusalem, Flaccus really put a stop to this flow. You judges dare not object to this, for have not the senate themselves passed resolutions deprecating the drain of gold from the Republic. It is but right and proper to hinder and oppose the barbarous superstitions of Palestine; and to show no fear of the Jewish mobs that crowd our public places, is a proof of my earnest convictions. All nations, O Laelius, have their religions

as we have ours. Even when Jerusalem was our ally, and lived in peace with us, yet their singular religious views, and their form of worship, was antagonistic to the glory of our Roman traditions, and to the institutions of our illustrious ancestors. How much the more should we now injure them, when they now oppose in war our Pompey and the arms of the Republic, and does it not appear as if our immortal Gods are vanquished, put to shame, placed under the yoke and subjected to tribute by the remitting of this *Aurum Judæorum* from the Roman Republic to Palestine.

Cicero shows his remarkable ingenuity and great skill in the defence of Flaccus, and adopts quite the modern, *fin de siècle*, anti-Semitic method, of no case—or bad case—abuse the plaintiff as much as possible.

This extract from Cicero's oration is most important, showing as it does that we have now emerged from mere tradition and hypothesis, and are now standing on a solid historical basis, and gives us convincing proof that whilst but a century before the Jews were scarcely known in the Roman metropolis, towards the close of the republican era they became a power to be reckoned with.* As we have previously stated, and subsequent events will amply prove, that the Roman people and Government were remarkably tolerant of every form of religious belief, always providing that cult was not antagonistic to their rule or to their civic ethics, or gave credence to the idea that the government of Rome could be supplanted by another. The Jews never forgave Pompey for his invasion of their Holy of Holies in the Temple of Jerusalem, a spot only to be visited by their High Priest once a year, on the day of Atonement, and in his struggle with Julius Cæsar, the Jews everywhere threw the whole weight of their

* Dr. Berliner, *Geschichte der Juden in Rom*.

influence with the latter, and they exerted themselves by every possible means to further the cause of Cæsar and his fortune. At the end of the republican era the Jews of the city of Rome were on good terms with the people and the government, but it was when Julius Cæsar rose to power that they seem to have reached their very culminating point of prosperity, and their congregations had special privileges accorded to them. Julius Cæsar, like Alexander the Great, saw in the scheme of a greater Rome, and not a little Rome, that the Jews would form a useful element. They were interpreters for the many languages spoken in the vast dominions of the republic, they seem to have been brokers, money changers or bankers, importers of wheat, general international factors, and also petty traders. Following, as we pointed out, with loyal fidelity, Cæsar and his fortunes, they laid the foundation of many Jewish congregations in Iberia, on the banks of the Rhine, in Gaul, and perhaps in Great Britain.

Curiously enough history repeats itself in our days in Hindostan, where the Beni Israel, or indigenous Indian Jews, are the most trusted factors in the native Indian army; many of them are Havildars, Subahdars, and Jemidars, upon whose fidelity and adaptability to the climate the British Government can absolutely rely; the shrewd common-sense of the Beni Israel soldier indicating to him that his welfare is bound up with the supremacy of Great Britain. At the same time he forms a convenient link for the British Government between the Mahomedan and Hindoo by his remarkable facility in speaking the many Indian languages and dialects.

The advent of an Alexander, a Cæsar, a Cromwell, or a Napoleon seems to be the phenomenal production of centuries, yet all these superlatively prominent leaders, with-

out exception, appear to have specially sought out the representatives of the Abrahamic race, and found a sphere of usefulness for their activity in the various dominions which they brought under their political influence.

So thoroughly had the Jews won the confidence of the great Julius, that not only did he grant them the full rights of Roman citizenship in the metropolis of the empire, but he gave their little independent commonwealth in Jerusalem the right to rebuild their fortifications, and place their walls in a perfect state of military defence.

The educated classes of Rome now began to interest themselves in the literature and methods of the community that Cæsar delighted to honour. In the later writings of St. Augustine* there appears a quotation of Varro, a philosopher who lived 47 B.C., and wrote on the archæology of the Romans. Varro observes that, in the early period of Numa Pompilius, the gods were worshipped for almost two hundred years without any images or visible objects of adoration. If this custom had been retained, he says, our Roman worship would have remained more pure. He adds: Look at the Jews; and proceeds to draw favourable conclusions from the spiritual ideal of Palestinian ethics. He goes on to say that those who were responsible for the introduction of images to represent the deity took away the fear of God, and provided the people with the seed of error.

From the writings of Philo we can elicit the fact that the Jews of Rome had congregations recognised by the State, and numerous synagogues in the Trans-Tiberian district. When the Alexandrian philosopher was sent with a deputation to appeal to Caligula to withdraw the edict that his statue should be placed in the Temple at Jeru-

* *De Civitate Dei*, iv, 31.

salem for public adoration, Philo thus addresses the emperor: "It is well known that from olden times the Jews have occupied a large portion of the city of Rome beyond the Tiber, and that they continued to maintain the traditional observances of their forefathers; that they had synagogues, where they assembled on the seventh day to have expounded to them the words of wisdom which they received from their ancestors. . . ."

This gives additional positive historical evidence of the antiquity of the settlement of the Roman Jews, and, furthermore, that their community was spiritually equipped as an *ecclesia* or congregation.

We return to Julius Cæsar. A proof of his solicitude for the well-being of the Jews in the whole of the Roman dominion is evidenced by an edict to the inhabitants of Paros, where some friction seems to have existed. It runs thus:—"Caius Julius to the people of Paros. I herewith declare my displeasure that any decrees should be issued against our friends and allies forbidding them to follow their ancestral rites, and preventing their collecting money for divine worship and their religious services in Jerusalem, inasmuch as they are permitted to do this in Rome, the metropolis, without let or hindrance. . . ."

Suetonius records that of all those who wept for Julius Cæsar the Jews were the most vehement in their demonstrations of grief. He observes that night after night crowds of Jews visited Cæsar's grave, and mourned and lamented the untimely end of their friend and benefactor.

Happily for the Jews, Antony was soon succeeded by Augustus, whose whole aim and object seemed to be to secure social order with a strong hand. He not only confirmed all the enactments of Julius Cæsar in favour of the Roman Jews, but considerably added to their privileges. He permitted them the unrestricted right of free

public worship, owing, as the emperor observes, to the gratitude the Jews have evinced for the protection of the Roman people. He facilitates their observance of the seventh-day Sabbath by relieving them from appearing at courts of justice on that day. He also decrees that distribution of corn to the poor should take place on the day after the customary Saturday, so that the poorer Jews who participated in the relief might not suffer through their Sabbath observance. He forbids any molestation in the collection of the *Aurum Judeorum*, or pence sent to the Temple at Jerusalem, and adds, it is henceforward enacted an act of sacrilege to steal any of the sacred books of the Jews, whether used in public places of worship or in private houses, . . . and concludes with a remarkable phrase, used for the very first time by any chief of the Roman State. Augustus concludes with these words:—*“or whererer or in any place the Jews pray to the Most High God.”*

The expressions of gratitude of the Roman Jews to Augustus knew no bounds. They built a synagogue, and named it the Synagogue and Congregation of Augustus, and inasmuch as they dared not render Divine honours to a human being, they instituted the recital of a daily prayer for Cæsar and the Roman Empire. Mommsen calls especial attention to this incident in his *History of Rome*.

The frequent visits to Rome of Herod and the princes of the Herodean family, who mingled freely with the aristocracy and the leaders of Roman Society, caused considerable interest to be evinced in the local concerns of the Jews in the metropolis, though curiously enough—as we shall show hereafter, and this Professor Graetz, in his *History of the Jews*, has brought out vividly—it was not until the temporal power in Jerusalem of the Jews was

abolished that the populace of Rome began to look sympathetically upon the practices of the Judæo-Romans. Seneca remarks, in his *De superstitio*: "So potent is the influence of this contemptible people that they, the conquered ones, have in all the countries where they have been introduced (as captives), given laws to their conquerors." Horace, Ovid, Perseus, and Juvenal complain that in Rome innumerable Roman citizens would do no business on the seventh day; that they refrained from travelling; they fasted, prayed, lit the regulation lamp, decorated their houses with the tabernacle wreaths, and even contributed to the pence, or *Aurum Judæorum*, sent to the Temple at Jerusalem.

It seems singular how the name of "sabbath" has adhered to the seventh day in most countries that were Roman provinces, even after Constantine had relegated the observance to the first day of the week. Thus the Italian still calls the seventh day "Sabato;" the Spaniard, "Sabado;" the French, "Samedi;" the German, "Samstag," and the Greek, "Sabbaton," all derived from the Hebrew *Sabat*, to rest.

In his *Fourteenth Satire* Juvenal laments the decrepitude of the age, the falling away from old republican customs, and the aping by the Romans of the methods of foreign religions, and remarks: "The fashion now seems to be to learn the Jewish laws, and to pay reverence to what Moses teaches in their esoteric scrolls."

At this period those Romans who had lost touch with the cult of Jupiter seem to have crowded the synagogues, and listened to the reading of the scriptures and the singing of the psalms and the orations of the Presbyters, and, although not admitted to the full communion of the Jews, it appears they were

termed God-fearing men. Men that fear God, or Judaizers.*

Though Herod and his sons visited the Roman capital very frequently, yet, as the modern King of Greece on his recent visit to London would probably be more in touch with Hyde Park, Belgravia, and the best sets in the English capital than with the Greek merchants in London Wall, so the Roman Jews preferred to identify themselves with Rome as Roman citizens, rather than court any reflected distinction from the visit of a monarch of Little Jewry. Outside Palestine there were probably as many Jews and followers of the Mosaic code as there were in the dominions of Palestine proper, and there was hardly an important community in the Roman Empire, from the Straits of Gibraltar to the Rhine, or from the Alps to the Egean Sea, from Alexandria to the borders of the Persian dominions, where, co-incident with the existence of the temple worship in Jerusalem, the followers of the ten commandments had not flourishing congregations and important synagogues. These Trans-Palestinian Jews were generally advocates of a *Greater Jewry*, not limited by the mere political boundaries of Palestine, and from time to time there seems to have been friction between those in Jerusalem, who thought the temporal power "indispensable" to Mosaism, and the others, who preferred the security and order guaranteed by the Roman laws, and would gladly have incorporated themselves in the Roman political family, surrendered their little kingship to Rome, and secured that which Rome gladly accorded, viz., full freedom for the practice of their ancestral rites and customs. Moreover, the foreign Herodian dynasty evoked no sympathy from the majority of their subjects even in Little Jewry, and the adherents

* φοβουμενοί του θεου or σεβομενοί του θεου or Ιουδαίζοντες.

of the Greater Jewry, outside Palestine, positively preferred Rome to the rule of the Herodian foreigners, who by force and fraud had assumed the royal title in Jerusalem.

If one dared give an illustration of a hypothetical incident it might the better show the position we have under consideration. Suppose an Indian Prince or Maharajah had allied himself to British interests, and wielded a powerful military organisation, and in a moment of peril for little England defeated her enemies. Now, going a step further, let us assume that he had his troops in London, and, after saving the city, overturned both the dynasty and parliament, and by brute force sustained himself and his followers in the Windsor and St. James' that once were occupied by such well-beloved monarchs as Elizabeth and Victoria. How little real affection or loyalty would the inhabitants of little England show such a dynasty; the people of greater England, living beyond the seas, perhaps none at all—even though this hypothetical Maharajah might adopt the Anglican form of worship and support the High Church party by lavish gifts and magnificent ecclesiastical constructions. This seems to be, as nearly as possible, the relationship between Jewry and the Herodian monarchy. Little Jewry hoped for some supernatural restoration of their ancient line of kinglets. Greater Jewry could hope for nothing better than incorporation in the Roman Empire, with the continuation of their spiritual power wielded by the Sanhedrin, and the Temple building, with its rites and ceremonies unfettered by matters of kingship or petty state policy."

The Herodians, however, in Palestine pursued the Roman principle of *Divide et Impera*, and were glad to set one school of thought against the other. At the

time of the first Herod in the city of Jerusalem there were over four hundred separate little organisations, each having its religious meetings, some numbering their hundreds, others thousands; many of them deviating from strict orthodoxy, yet each and all paying their devotions at the Temple on the high festivals. It can be well imagined that the quarrels and wrangles between these little factions were at times as fierce as we hear in our own days of attacks made upon evangelists in Cork, or as dangerous as the anti-popery riots in Belfast. The Herodian police, or "*shoterim*" as they were termed, had constantly to interfere to maintain a semblance of order. All this was accentuated under the successor of Herod, Archelaus, who became merely ethnarc of the Little Jewry in Palestine, the country being occupied by the Roman legions, and the civil administration subject to Roman laws. Disloyal and indifferent as the Jews were to his kingship, they could but respect the strength of character and the firmness with which the first Herod ruled over the various factions, and the absolute ordered security of his administration. Archelaus, however, was the very reverse of his father, weak in will and powerless in administration, and under him the various religious factions became ungovernable.

This state of affairs, however, only concerned the Little Jewry in Palestine. In the Greater Jewry, in the various Roman provinces, and in the metropolis of the empire, there was scarcely any deviation from orthodoxy, and the farther off the Jews were from Palestine the less they seemed to be divided into sectional differences, and the more they appeared to accept the decisions of the Sanhedrin at Jerusalem, as a final court of religious appeal. However severely the arm of Rome was wielded in Palestine, yet in the metropolis of the Roman Empire, and in

the provinces generally, the Jewish congregations were contented to come under the general Imperial laws.

In tracing the influence and character of the Roman Jews upon the Latin population, proper regard must be had to the duality or polarity of the character of the Jewish people. All nations or races possess this characteristic more or less, but it is more strongly developed in the Jew. I must again illustrate this feature. For instance, when I visited a certain town in Holland I saw the walls placarded with notices that a series of temperance meetings were being held, and that numerous very distinguished men were preaching on the advantages of a holy and temperate life. The first thing that it occurred to me to ask my guide was—not whether the place was very pious or a very temperate one—but whether there were not a number of drunkards there, and his reply was what I expected, namely, that those who were not drunkards were very pious and absolutely temperate, and those who were not absolute temperate were very drunken. The duality and polarity of the Netherlands is also a remarkable feature. There are Flemings who are phlegmatic, lifeless and soulless, and there are Flemings who are artists to the tips of their fingers, exquisite painters, exquisite carvers in wood and stone, and skilful executants in music, all in one and the same people. There is again the German orchestra, where every player is a perfect artist, and who lead the world in symphonic poetry. There is again the German band, which is a reproach and a by-word, every player being out of tune. There is the Italian sculptor who breathes life into marble such as no modern people can do, side by side with the plaster-of-Paris-image man. There is in France a real gastronomic cult, producing the French *chef*, whose art is appreciated in every court and hotel in Europe, side by side with the Gargotier, of whom

it may be remarked, as Mercutio observed of his sword :
 "Heaven send me no need of thee."

So we have the imaginative, poetical, dreamy, prophetic, as well as the unpractical kind of Jew, together with the heroic, the fighting, the swashbuckler Jew, side by side with the ultra-practical, acquisitive and conservatively legal Jew, who is for peace at any price.

The same generation that seems to produce a Karl Marx, the founder and prophet of Socialism ; his greater disciple Lasalle ; and Singer, one of the present leaders of the German Social Democrats, produces also a Rothschild, a Baron Hirsch, a Barnato, a Sassoon and a Ricardo, who, as individualists and orthodox political economists, are prominent exponents of the rights of personal acquisition. The same race producing eminent types of antagonistic principles, the same family seeming to bring forth individualism *in excelsis*, and socialism or collectivism *in excelsis*. Nay, we can pursue this duality or polarity of character in other branches or walks of life. For instance, there have been such Jewish pugilistic champions as Dutch Sam, Aaron-Mendoza, and many other pets of the prize ring when boxing was in fashion ; and there is the meek Jew, who, if his right cheek is smitten, turns the left also.

Again, the same generation that produces a jingo singer like the great Jew tenor, John Braham, who wrote the "Death of Nelson," produced also Henry Russell, a Jew of bucolic tendency, who did not a little to foster emigration to the Colonies by his songs, "Cheer Boys Cheer" and "To the West." A historian failing to take into account the greater or less degree of polarity or duality that exists in the character of the community whose records he examines, is like the astronomer of old, who saw merely with the naked eye, and knew not the use of the telescope.

Thus, whilst Palestine produced Jews in abundance who were warriors, poets, dreamers, philosophers, and thinkers, many of them wandering to Alexandria and Babylonia; on the other hand, in the Roman dominions on the European continent, the Jews seem to have been eminently practical, but *unpoetical*, and *unimaginative*, bent upon material acquisition, prone to mind their own business, and pay their rates and taxes with regular promptitude to Rome, being too respectably dull to trouble themselves about metaphysics. Unlike the Jews in Jerusalem, where there were over four hundred organisations, with at least as many preachers, many deviating from both Sanhedrin and Temple worship—the Latin Jews remained tolerably orthodox, and made very little use of their undoubted ethical influence in the Roman metropolis, except by their exemplary social virtues, which could not escape notice. Friend and foe in Rome unite in bearing testimony to the sobriety and chastity of the Jews; and in a capital where, in Imperial times, profligacy and lewdness was in the air, many a pure and high-minded Roman matron found in a Jewish house an oasis in the desert of immorality, as inscriptions from the catacombs will show.

But the Roman Jews had neither the intellectual capacity, the so-called “go,” nor the poetic fire and imagery of their Palestinian co-religionists. Happily for them, the early break-up of Judaic temporal power in Jerusalem, and the dispersion and emigration of the Palestinian Jews into all the provinces of the vast Roman empire, was a “blessing in disguise” to the Jewish people, although unappreciated at the time by them; for it reinfused into their blood the element which was dying out. It acted upon greater Jewry the same as the mixture of Celtic blood has done in England and greater Britain; it infused the element of poetry, the love of religious cheerfulness,

and the cult of the ideal, all of which was rapidly evaporating from the vast masses of Trans-Palestinian Israel, and enabled them to withstand a subsequent fifteen hundred years of persecution, contumely, and social ostracism.

Lord Acton has assured us that the value of history does not lie in accurate knowledge of what happened, which, indeed, may be regarded as unattainable, but in the scope it gives for solid and penetrative criticism of conflicting accounts. Prince Lobanoff, one of the most eminent Russian statesmen, lately assured M. de Blowitz that every time he had an interview with Lord Granville, the then Foreign Secretary of Great Britain, he endeavoured to record accurately all that had passed between them immediately after the conversation, and he took the precaution the next day to read over the written report, when it invariably occurred that Lord Granville found some things that needed correction.

There is the pitfall before every historian, and he is probably only on fairly safe ground when friend and foe record events on almost identical lines. Now most writings of the Latin historians are full of envy, prejudice, and hatred to the Jews, and accuse them of every imaginable failing *except* that of sexual immorality. On the contrary, in many instances their stern morality, virtue, and constancy are charged to them as proofs of weakness and obstinacy. Tacitus, who has nothing but sneers for the people of Palestine and their absurd traditions, has admitted their morals to be above reproach, and remarks that no Roman woman had to suffer indignity from Jews, and that the bodies of the men are healthy, and such as will bear great labour.*

I must revert to the reign of Tiberius. That the Jewish population in Rome continued to increase in vast

* Tacitus, *Account of the Jews*, Book v, cap. 5, 6.

proportions is evidenced by the quotation that Mommsen gives us (vol. iii, p. 549) of the remark of a Roman governor: that he was always careful to stand well with the Jews in the provinces he had to administer, otherwise he ran the risk of being whistled at and hooted by mobs of the lower classes of the Jews who abounded in the Roman metropolis; and we read * that at about this period, after the death of Herod, when a deputation of fifty elders arrived in Jerusalem, and when they were received in audience by the Emperor at the Temple of Apollo, they were joined in procession by eight thousand of the influential Roman Jews.

Sejanus was, however, indisposed towards this growing influence, and began to take severe measures to uphold the cult of Jupiter, banishing a large number of Egyptians and Jews to the island of Sardinia. After the death of Sejanus, however, Tiberius was so convinced of the groundlessness of the charges brought against them, that he reaffirmed all their rights, and issued an edict to all the governors and pro-Consuls that the Jews were to be left unmolested, and the free exercise of their ancestral customs to be guaranteed.

During the reign of Caligula, the celebrated deputation of Philo of Alexandria went to persuade the Emperor to remove his effigy from the Temple and Jewish places of worship generally, for whilst it may have been congenial to Latins and Hellenes to deify an emperor, it was always contrary to the genius of the Hebrew race to render divine honours to any born of woman. The death of Caligula and the advent of Claudius removed this difficulty, and in an edict to the Jews he remarks that whilst he confirms the right to follow their accustomed ritual and observances, he entreats the Jews not to despise the superstitions of

* Josephus.

other — but to be content with following their own — ordinances. This may have reference to the incipient proselytizing zeal of the Ebionites, who for a considerable period were classed by Romans as Jewish Sectarrians.

An incident of the time of Nero, described by Josephus, speaks for itself. He says in his biography: “And when I had thus escaped, and was come to ‘Dicearchia,’ which the Italians call Puteoli, I became acquainted with Aliturus, an actor of plays, and much beloved by Nero, but a Jew by birth. Through his interest I became known to Poppea, Cæsar’s wife, and took care as soon as possible to entreat her to procure that the priests might be set at liberty, and when besides this favour I had obtained many presents from Poppea, I returned home again.” So much for the Jewish historian. We see with Poppea, as with Mary of England and Philip of Spain, it depends for the side-lights of their character whether the historian be a Roman Catholic or a Protestant.

It redounds to the credit of Roman statesmanship, that whilst Vespasian and Titus were carrying on war to the knife with Little Jewry in Jerusalem, Greater Jewry in Rome, or elsewhere out of Palestine, had little to complain of. The rights and liberties of the Roman Jews, both in the metropolis and in the empire, were not sensibly abridged. One might have observed the same occurrence in modern days with the British Gauls in Canada, notwithstanding that Britain and France were engaged in mortal combat which culminated at Waterloo, yet no Canadian French-speaking Gauls ever lost any of their rights and privileges as British citizens. Perhaps in their heart of hearts the French-Canadian might have felt a pang at the report that those who were living in the land which was the cradle of their race, were fallen from their high estate. Perhaps the Jews in Rome may

have felt like the English did in the Transvaal, or South Africa, after the disaster at Majuba Hill, when every Boer urchin used to skriek after an Englishman, "Verdamter Englander, we've licked you!" And so, no doubt, many a Roman urchin, at the triumph of Titus, might have shouted in the Forum, "Verdamter Jew, we've licked you!" But just as the Englishman felt instinctively that the scheme and influences of the Greater Britain would in the end permeate South Africa, so the Roman-Jew instinctively felt, even when Little Jewry was put an end to, that his Amen, Hossana and Alleluia might survive the chants to Jupiter, and perhaps take their place. Time was on his side, and his defence of Jerusalem was sufficiently valorous to make him feel that though the temporal power was vanquished, his military honour was not lost, and, strange to say, although the Jewish citizens of the Roman empire seem to have felt that the Temple, and perhaps Mount Zion and its ritual might have been saved had there been a timely concession to Rome, deeply as their hearts were seared at the loss of the Temple and its sacred associations, very few regretted the abolition of the mere temporal power in Palestine. They felt now that the taunt that the Jews had a dual allegiance, one to Rome and another to Jerusalem, was over, and the best they hoped for was that perhaps ultimately they might regain the right to rebuild their central place of worship, where in time all the world might make pilgrimages to Mount Zion; but few practical Roman Jews ever seemed to wish for a renewed Herodian monarchy for Little Jewry.

There appears to have been at this period very many Romans who deeply sympathised with the aims and objects of Greater Jewry outside Palestine. These Romans

were divided into three classes. (1). Those who sympathised with and respected the ethics of the Jews were called the righteous. (2). Those that went a step further and attended the reading of Scripture and chanting the Psalms were called the pious. (3). Those that, absolutely in communion, entered into the Abrahamic covenant and were called proselytes of righteousness.

In the authorized prayer book of the Jews is a litany probably composed about the reign of Titus, which best shows the inner sentiment of the Jews at the period of the Flavian dynasty. It reads thus: Towards the righteous, towards the pious, towards the presbyters of thy people, the house of Israel, towards the remnant of their scribes, towards the proselytes of righteousness, and towards us also may thy tender mercies be stirred. O Lord our God, grant a good reward unto all who faithfully trust in Thy name; set our portion with them for ever, so that we may not be put to shame because we have trusted in Thee. Blessed art Thou, O Lord, the stay and trust of all the righteous.

The enormous infusion of Jewish Palestinian blood into the *disjecta membra* of the Greater Jewry was, as we previously pointed out, the rejuvenation of the Jewish race everywhere throughout the Roman Empire, and perhaps the greatest boon that ever happened to this people. One might venture to speculate upon the problem that, were it not for the destruction of the temporal power and the dispersion and denationalisation of Little Jewry, the same result might have happened to the Israel of Rome that we find with the remnant of the Jews now in China.

The following inscriptions are from tombs in the catacombs of the Jews, from about the period of Julius Cæsar to about the third century, or pre-Christian Rome:—

1. Here lies Irene Parthenike, wife of Clodius, brother of Quintus Claudius Synesius, father of the Campensian Synagogue in Rome. The word Shalom שָׁלוֹם (peace) in Hebrew. *All the rest is written in Greek.*

2. To her worthy and well-beloved husband, Aurelius Hermianus, his wife, Julia Afrodisia, has erected this, and begs that a place may be retained so that she may be put by the side of him when she ceases to live. *This is a Latin inscription.*

3. Here lies Asterias, the pious and irreproachable father of the Synagogue—Rest in Peace.

4. To his parents, Asterius the Gerusiarch, and to Lucina, his mother, the Archont. Asterius has erected this.

5. To Aurelia Camerina, the good and well bred wife with whom he lived 17 years, Sempronius Basileus has erected this. To the well deserving wife, may her rest be in peace.

6. To Abundantius, who was seventeen years of age. He was well deserving, and Cocotia, who was also called Judas, who grew up with him and worked side by side with him, has erected this—In peace may he rest.

7. To Aelia Septima, the very dear and well deserving mother, Aelia Alexandria has erected this—*Concludes with an S., abbreviation for Shalom, Hebrew, = peace, but the whole is in Latin.*

8. To Aelia, the well deserved, Procles has erected this. She lived 82 years and 10 months.

9. To Aemilia Theodora, Aurelius Bassus has erected this.

10. To Agathus, the well deserving son, who lived 15 years, Aurelius Joses and Aurelia Auguria have erected this.

11. Here lies Agentia, she was only married once, and lived together with her young husband nine years.

12. To Agrius Evangelus, the well deserving colleague of Reginus.

13. To Alexander, the subsequent Archont to his dear child, Alexander, the revered Archont.

14. To Alexander, sausage maker (Bubularius) of Macello, who lived 80 years; an honest soul, everybody's friend. May he rest among the pious.

15. Alypis Tiberius and his sons, Justus and Alypis, the Hebrews, rest here with their father.

* Only a few tombs are minutely described, the majority being translations of the verbal inscriptions only.

16. Here lies Amachius, who was also Primus. Let the memory of the righteous be a blessing. The words of praise to him are true indeed.

17. Here lies Ammias, Jewess from Laodicea, who lived 85 years.

18. Here lies Annianus, the young Archont, 8 years and 2 months old; son of Julianus, father of the Synagogue of the Campensians.

19. To the wife, Appidia Lea, L'Domitius Abbas and her daughter, Domitia Felicitas, have erected this.

20. To his mother, Asclephiodote; and to his brother, Alexander the Archont, Constans has erected this.

21. To Asius, the ten years old child.

22. To Aurelia Helenete, his well deserving wife, Aurelius Alexander has erected this.

23. To Aurelia Flavia, his well deserving wife, Jonata, the reverend Archont, has erected this.

24. To Aurelia Quintitia, her dearest and well beloved mother, who lived 60 years and five months, Aurelia Protogenia has erected this.

25. To Aurelia Mara, the worthy and very dear child. Polycarp, her father, and Crescentine, her mother.

26. Here lies Aurelia Zotike, — years old. Her grandchild, Fronto, has erected this.

27. Beturia Paulla, removed to the everlasting house, 86 years and 6 months old; 16 years she lived as a proselyte. She was mother of the Synagogue of Campus and Bolumnus.

28. To Castricius the Grammateus, his wife Julia has erected this to her well-deserved husband.

29. Here lies Centulia, daughter of Ursacius

30. To Sister Chryside, the very sweet proselyte, erected by Manacius. Her rest be peace.

31. Here lies Constantinus the child.

32. In peace be the sleep of Cossutius, who lived 21 years and 6 months. His brothers have erected this.

33. Crispina, daughter of Procopius, industrious and law-loving, lies here.

34. To his brother Decembrus, Justus has erected this.

35. To the blameless Deuterus of the Synagogue. To Deuterus, the excellent Grammateus, Dulcis has erected this.

36. Here lies Doreis.
37. To Dulcitia, the youthful bride, Pancharius the Gerusiarch has erected this.
38. Here is placed Eparchia Theosibes, who lived 55 years and 6 days.
39. Here lies the artist (painter) Eudoxius. In peace be thy sleep.
- 40.
41. To Elogius, his very dear son, and his grandson Socus.
42. To the very dear mother, Eulogia, who lived 81 years, Castus, her son, and Sabinus, her grandson, have erected this.
43. To her son Eutychetes, who lived 19 years, his mother. Afrodisia, has erected this.
44. Here lies Eutychianus, the Archont, a worthy husband. Be comforted; he rests among the righteous.
45. Here lies Faustina. (*Shalom in Hebrew.*)
46. Faustinus, the baby, lies here. Son of Alexis.
47. Here lies Flavia Antonina, wife of Dativus, Presbyter of the Synagogue of Augustus.
48. To Flavia Caritine, the well-deserved, Flavia Dativa has erected this. (*A pair of clasped hands.*)
49. To Flavia Vitaline, the well-deserving wife, Cocianus, has erected this.
50. To her father, Flavius Julianus, the Synagogue Inspector, his daughter, Flavia Juliana.
51. Here lie two daughters of the father of the Hebrews, Gadia.
52. Here lies Gaius, the pious Prostates; he lived 72 years of age.
53. To the well-deserved husband, Gaius, Antonina and her son has erected this.
54. To Gargiglia Eufraxia, his dear wife, Ch***, her husband, has recorded this. She lived 19 years, 8 months, and 12 days. She was well deserving, and merited not so untimely an end.
55. To Gemellina, the child; lived 1 year and 11 months, Victor, the Grammateus, has erected this.
56. ***gogue of the Rhodians.
57. To her husband, Imerus, the well-deserving Mounna, or public trustee, Julia Alexandra has erected this.

58. Here lies Jocatlinus, the young Archont.
59. Here lies Joses, the sweet infant, 2 years and 8 days old. Procopius, the father, and Crispina, the mother, ask the prayers of the passers-by for peace in his sleep.
60. To Irenetia, their daughter, who lived only 2 years, her parents, Fortunatia and Justa, have erected this.
61. Here lies Judas, a promising Grammateus, aged 25.
62. Here lies Judas, the child.
63. Here lies the child Judas, son of the Grammateus Salutius.
64. To her daughter, Julia, aged 34, Polla erected this.
65. To his mother, Julia, her son, Castricius, has erected this.
66. Console thyself, Julia Emilia, only 40 years old. Well hast thou cared for thy loving husband, and he is grateful to thy soul for it.
67. Here lies Julianus, the Priest Archont, and son of the Archisynagogus, Julianus.
68. To Justus, the Grammateus, 37 years old—a loving son, father, and loving brother Maron, twice Archont, has erected this.
69. Isodorus Eterus.
70. To his adopted one, Justus, Menandros has erected this.
71. Pure and spotless Klaudius Propinquius, of the Synagogue of **** and Epiphania, her son, who lived 23 years and 6 months.
72. Klaudius, son of Joses, Archont, lived 35 years.
73. **** lies Leontius, son of Leontius.
74. Lucilla, the blessed, the pride of Sophronius.
75. Lucinus.
76. Valerius, the Archont, has erected this to Lucretia, his wife. She was 28 years old.
77. Here lies Magna Petronia, wife of Oronatus, aged 45.
78. Here lies Maria; she fulfilled 55 years.
79. Marcellus and his wife, Successa, have erected this to their dear daughter, Marcella.
80. Here lies the child, Marcellus.
81. Marcia, the good Jewess.
82. To Marcia, his dear wife, erected by Ælianus.
83. The dear child, Maria, lies here; daughter of Procopius.
84. Marcus Quintus Alexis, Grammateus of the Augustines, and afterwards Archont of the Synagogue of Augustus.
85. Here lies Mardeploos, 80 years of age.

86. Here lies Margarita, who lived 19 years, and with her husband 4 years.

87. To Maro, her husband, and Justus, to his father, he and Maria have erected this.

88. To the sweetest mother, Melition, age 29 years, her daughter, Dulcilia, has erected this.

89. Here lies Minaseas, pupil of the wise, and father of the Synagogue (*Pater Synagoga*).

90. Nepia Marosa; lived 4 years.

91. Here lies Nicodemus, Archont of the Siburesians, beloved by everybody; aged 30 years and 42 days.

92. Here lies the virgin, Nometora, aged 18 years.

93. To her adopted child, Notus, aged 27, Alexandra Severa has inscribed this. He assisted her with his works during his lifetime.

94. Numenius, the Grammateus.

95. Numenius, the child, lies here.

96. Here lies Onoratus, the young Grammateus, son of Rufus, the Archont; he lived 6 years and 28 days.

97. Here lies Onoratus, the blameless Grammateus, aged 70 years, 8 months, and 12 days. Rufus, the Archont, to his amiable father.

98. Oproman lies here.

99. Here lies Pancharius, father of the Velian Synagogue, aged 110 years. He led a good life, was a philanthropist, and a friend of all mankind.

100. Here lies Parthenos among the righteous.

101. Here lies Parthenicus, son of Clodius, brother of Quintus Claudius Synesius, father of the Synagogue of the Campensians in Rome.

102. To Petronius, the Grammateus, the pure one, aged 23 years, 4 months and 8 days, Onoratus, the father, a Grammateus, and Petronia, his mother, have inscribed this.

103. To Petronius, the Grammateus.

104. Here lies Poeminis, the blameless one; she lived 96 years, 1 month and 18 days.

105. Here lies Probus, a child that loved his father and mother, age 2 years, 1 month, 13 days.

106. Here lies Primitiva and her grandchild Euphrenon.

107. Here lies Quintianus, Gerusiarch of the Synagogue of Augustus, age 54.

108. Here lies Quintiane, age 26.

109. Here lies Quirinus Judæus, age 44.

110. To her brother, Renatus, Sabbatia has erected this.

111, 111A. Here lies Roman Amen, a pious child, and Rufilla Pietas, who, together with Celerina, lived 8 years, 4 months and 15 days.

112. To Sabbatius, his son, Gaius has erected this.

113. To Sabbatis, daughter of Vibeæ. 13 years old.

114. Sabbatis, the wife of Leo, lies here; 27 years old.

115. To his dear daughter, Sabbatis, only 3 years old, her father, Lucius ****.

115A. Here lies Sabbatis, twice Archont, age 35.

116. To his daughter, Sabina, age 16, Pardus has erected this.

117. Here lies Sabina. She loved her husband, and was a friend to all.

118. To his well-deserving wife, Sabine, age 18 years and 3 days, Germanus has inscribed this to his most perfect wife, who lived 8 years and 3 days in a blissful union.

119. To the Archont and Archisynagogus Safulus, who worthily filled every honorable post, Restitua has erected this to her well-deserving husband.

120. Salbius, a child, aged 7 years.

121. Here lies Salome, age 10 years and 1 month, daughter of Gadia, father of the Synagogue of the Hebrews.

122, 122A. Salpingius, a tender child. Here lies Semoel, a young child, 1 year and 2 months old. Be comforted, Samuel; no one is immortal.

123. Here lies Sarra, with her son.

124. To his sweet mother, Severa, her son Severus has erected this.

125. Simon ****icus, **** son.

126. Here lies Simplicea, mater Synagogæ. She dearly loved her husband, who was also pater Synagogæ.

127. Here lies Synelice, daughter of Ursacius.

128. Here lies Theophilus, the Gerusiarch, after an exemplary life and beautiful reputation, his sons, Theophilus and Eusebius, have perpetuated the memory of their very dear father.

129. Here lie Tobias Barzaarona; also Pareiorius, son of Tobias Barzaarona. (*Repeated both in Latin and Greek*).

130. Throphina, a most agreeable daughter, age 1 year and 10 months—Throphinus has beautifully inscribed this.

131. To Tullius Irenæus, her well-beloved husband, Ælia Patricia, has erected this. He is gone to everlasting life.

132. *te, the incomparable Tyresia, Profutura has erected this.

133. To the well-deserving Ulpia Marina, age 32.

134. Here lies Ursacia, daughter of the Gerusiarch, Ursacius. of Aquilega.

135. Here lies Ursus, the Grammateus, age 22 years and two years and 3 months—to the memory of a bridegroom.

136. To their dear daughter, Valeria, aged 5 years, 10 months. and 4 days. Valerius and Simonis, parents, have erected this.

137. Veneroso, aged 17; married only 15 months.

138. Verecundus, the darling child, lies here.

139. Vitalius, the Grammateus, lies here, aged 8 years and 14 days.

140. Zabuttas, son of the Archont Zabuttas.

141. Grave of Vesala (*locus*). She departed this life aged 25.

142. Here lies Zozimus, and gone to everlasting life; Archont of the Synagogue of the Agrippans. Also Eullis, Archont; — years.

143. Zoticus, the Archont, lies here, after a beautiful life; dear to all and friend to all; known to everyone for his virtue, his manliness, and his ability.

144. **, the philanthropist. He loved righteousness and the poor.

145. Eusebius Nev*, pious and steadfast lawyer; aged ** years.

146. Cattia Ammias, daughter of Menophilos, pater Synagogæ of the Carcaresians; lived as a faithful Jewess with her husband for 34 years, and of his children she saw the grandchildren. Here lies Cattia Ammia (*presumably her husband was a non-Jew, and may have been one of the so-called Phoboumenoi ton Theon*).*

* I have invariably made use of Dr. Berliner's versions of the Roman Jewish epitaphs.

RECAPITULATION.

There are now five ancient Jewish cemeteries that have been excavated—

1. In the year 1602, in the Monte Verde, near the Porta Portuensis, Bosio discovered one, and details are given in his *Roma Sotteranea*, page 191.

2. On 1st May, 1859, Father Garrucci excavated a very large Jewish cemetery in the Via Appia, and has written a valuable work: *Cemetero degli antichi Ebrei scoperto recentemente un Vigna Randanini*, 1862.

3. The third discovery was in the vineyard of Count Cimarra, and a full account is given in the *Buletino di Archeologia Cristiana*, 1867. No. 1.

4. A fourth cemetery was found in the Via Labicana, dating from the Antonine period. This discovery was in 1883, and the credit is due to Prof. Orazio Marruchi, and he works out full particulars and details in a treatise called: *Di un nuovo cimitero guidaico scoperta sulla Via Labicana*, 1887.

5. In 1885 Dr. N. Muller found another cemetery in the Via Appia Pignatelli, but as yet he has only given a short paper on the subject, "In den Mittheilungen des Kaiserlich Deutschen Instituts," Band 1, S. 49-56; but we hope to have more information on some important points revealed in inscriptions now for the very first time.—Rénan and the Abbé Perreau have attached the highest historical importance to these discoveries.

 EXPRESSIONS USED.

1. Gerusiarch. We find the term used in inscription 107. Quintianus Gerusiarch, of the Synagogue of Augustus; likewise Asterius, Ursacius Theophilus, Pancharius, these are all described as Gerusiarchs. These were the chief of the Gerusia, or council, which each Synagogue appointed to direct its secular affairs.

2. Archont—he was the executive officer to carry out the decrees of the Gerusia, and to inquire into the needs of the poor.

3. Archisynagogus was the chief presbyter, who was responsible for the religious services.

4. Pater Synagogæ, his function was to look after the sick and dying, to superintend the burial services, and to console the bereaved.

Mater Synagogæ had similar functions, so far as regards women, but she had **also** to look after orphan girls, as well as poor maidens who were about to get married, and to help them with material comfort and advice.

5. **Euperetes**, or **Inspector**, his office was to be attached in all functions to the **archisynagogus** and **pater Synagogæ**; they were generally men of legal training, to see that no rite or ceremony should infringe the Roman laws.

6. **Grammateus**, **Nepios**, and **Mello-grammateus** were lawyers and students attached to the congregation.

7. **Nommathes**, and

8. **Madethes Sophon** were men, eloquent and learned in the law, and students who could speak as well as teach.

9. **Prostates**; in Latin, **Patronus**. We find this term in inscription 52 (Here lies **Gaius**, the pious **prostates**; he lived 72 years). His office was to act as the legate from the Synagogue to the Roman Government; he was recognised by both as the official medium to conduct negotiations between the Synagogue and the State.

10. **Praefectus**, or **Mounna**, he was the trustee of the Synagogue, in whom was vested the property of the community; and probably acted as general public trustee for the entire congregation, individually as well as collectively.

SYNAGOGUES.

We find by dint of these inscriptions evidence of the site of synagogues, their existence hitherto being merely traditionary folklore.

1. **The Synagogue of Augustus**.—The spot is supposed to be occupied now by the Church of **Salvatore**. Lately, in dredging the Tiber near the **Porta Settimiana**, a tablet was found bearing the name of **JASON DIS ARCHON**, evidently being a portion detached from the walls of the Synagogue of Augustus, and in memory of the Archon **JASON**.

2. **The Synagogue of the Agrippans**, probably named after **Marcus Agrippa**, a Roman Governor, and a benefactor of the Jews. **Josephus** mentions this incident in his *Antiquities*, xvi, 2, 3.

3. **Synagogue Campus** was situated in the **Campus Martius**, and is often mentioned in epitaphs, therefore it seems to have been an important congregation.

4. The Synagogue Campus and Bolumnus. We often find the names of two districts attached to a synagogue. The inference seems to be by experienced archaeologists, that the Bolumnus Synagogue may have become impoverished, joined or amalgamated with a sister synagogue, and incorporated the name of the former community.

5. Synagogue of the Siburesians was situated in the old district of Suburra, the centre of the commercial world of the old Romans, like Lombard Street in London, or Castle Street, Liverpool. The synagogue was also known as the Synagogue of the Emperor Severus, probably in memory of his benefactions. This emperor bore the nickname in Rome of Archisynagogus, from his friendly disposition to the Jews; just like the anti-Semites in our day nicknamed the late Emperor Frederick of Germany the Emperor of the Jews.

6. The Synagogue of Velia. This was situated near the Palatine Hill.

7. The Synagogue of the Hebrews.—So called because it was the place of worship founded by Little Jewry from Jerusalem, and those who could speak neither Latin nor Greek; and it was probably also the place of worship of Samaritans, numbers of whom lived in Rome. They called themselves Hebrews, and not Jews, because they were not of Jewish blood. This synagogue was *extra muros*, outside the Portuensis gate.

8. The Synagogue of the Calcarians, situated near the Circus Maximus.

9. The Synagogue of the Rhodians. We are unable to trace the *locale* of this community, although it seems to have been a very important one.

These appear to be the important Synagogues referred to in the inscriptions from the catacombs, but there is good evidence to show that there may have been more than a hundred meeting-houses (or chapels, as we should term them now) all over the city, branches of the various important synagogues. The population of the Jews in the Roman metropolis has been variously estimated—some say 80,000; others estimate the number as high as 125,000, but the probable number would be between the various conflicting statements. It would be safer to consider from 90,000 to 100,000 the probable Jewish population of the capital of the Empire.

MODERN VIEWS OF LIGHT.

ABSTRACT OF THE SUBJECT MATTER AND EXPERIMENTS.

By PROFESSOR OLIVER LODGE, D.Sc., LL.D., F.R.S.

JUST as a pebble thrown into a pond excites surface ripples, which can heave up and down floating straws under which they pass, so a struck bell or tuning-fork emits energy into the air in the form of what are called sound waves, and this radiant energy is able to set up vibrations in other suitable elastic bodies.

If the body receiving them has its natural or free vibrations violently damped, so that when left to itself it speedily returns to rest, then it can respond fully to notes of almost any pitch. This is the case with your ears and the tones of my voice. Tones must be exceedingly shrill before they cease to excite the ear at all.

If, on the other hand, the receiving body has a persistent period of vibration, continuing in motion long after it is left to itself, like another tuning-fork or bell for instance, then far more facility of response exists, but great accuracy of tuning is necessary if it is to be fully called out; for if the receiver is not thus accurately syntonised with the source, it fails more or less completely to resound.

Conversely, if the *source* is a persistent vibrator, correct tuning is essential, or it will destroy at one moment motion which it originated the previous moment.

Whereas, if it is dead-beat or strongly-damped, almost anything will respond equally well or equally ill to it.

What I have said of sounding bodies is true of all vibrators in a medium competent to transmit waves. Now a sending telephone or a microphone, when spoken to, emits waves into the ether, and this radiant energy is likewise able to set up vibration in suitable bodies. But we have no delicate means of directly detecting these electrical or etherial waves; and if they are to produce a perceptible effect at a distance, they must be confined as by a speaking-tube, prevented from spreading, and concentrated on the distant receiver.

This is the function of the telegraph wire; it is to the ether what a speaking-tube is to air. A metal wire in air (*in function*, not in details of analogy) is like a long hollow cavity surrounded by nearly rigid but slightly elastic walls.

Furthermore, any conductor electrically charged or discharged with sufficient suddenness must emit electrical waves into the ether, because the charge given to it will not settle down instantly, but will surge to and fro several times first; and these surgings or electric oscillations must, according to Maxwell, start waves in the ether, because at the end of each half-swing they cause electrostatic, and at the middle of each half-swing they cause electromagnetic effects, and the rapid alternation from one of these modes of energy to the other constitutes etherial waves.* If a wire is handy they will run along it, and may be felt a long way off. If no wire exists they will spread out like sound from a bell, or light from a spark,

* Strictly speaking, in the waves themselves there is no lag or difference of phase between the electric and the magnetic vibrations; the difference exists in emitter or absorber, but not in the transmitting medium. True radiation of energy does not begin till about a quarter wave-length from the source, and within that distance the initial quarter period difference of phase is obliterated.

and their intensity will decrease according to the inverse square of the distance.

Maxwell and his followers well knew that there would be such waves; they knew the rate at which they would go, they knew that they would go slower in glass and water than in air, they knew that they would curl round sharp edges, that they would be partly absorbed but mainly reflected by conductors, that if turned back upon themselves they would produce the phenomena of stationary waves, or interference, or nodes and loops; it was known how to calculate the length of such waves, and even how to produce them of any required or predetermined wave-length from 1000 miles to a foot. Other things were known about them which it would take too long to enumerate; any homogeneous insulator would transmit them, would refract or concentrate them if it were of suitable shape, would reflect none of a particular mode of vibration at a certain angle, and so on, and so on.

All this was *known*, I say, known with varying degrees of confidence; but by some known with as great confidence as, perhaps even more confidence than, is legitimate before the actuality of experimental verification.

Hertz supplied the verification. He inserted suitable conductors in the path of such waves, conductors adapted for the occurrence in them of induced electric oscillations, and to the surprise of everyone, himself doubtless included, he found that the secondary electric surgings thus excited were strong enough to display themselves by minute electric sparks.

Electric Syntony: that was his discovery, but he did not stop there. He at once proceeded to apply his discovery to the verification of what had already been predicted about the waves, and by laborious and difficult interference experiments he ascertained that the previously

calculated length of the waves was thoroughly borne out by fact. These interference experiments in free space are his greatest achievement.

He worked out every detail of the theory splendidly, separately analysing the electric and the magnetic oscillation, using language not always such as we should use now, but himself growing in theoretic insight through the medium of what would have been to most physicists a confusing maze of troublesome facts, and disentangling all their main relations most harmoniously.

Receivers or detectors which for the present I temporarily call microphonic, are liable to respond best to the more rapid vibrations. Their sensitiveness is to me surprising, though of course it does not approach the sensitiveness of the eye; at the same time, I am by no means sure that the eye differs from them in kind. It is these detectors that I wish specially to bring to your notice.

Nearly four years ago M. Edouard Branly found that a burnished coat of porphyrised copper spread on glass diminished its resistance enormously, from some millions to some hundreds of ohms when it was exposed to the neighbourhood, even the distant neighbourhood, of Leyden jar or coil sparks. He likewise found that a tube of metallic filings behaved similarly, but that this recovered its original resistance on shaking. Dr. Dawson Turner exhibited this fact recently at the Edinburgh meeting of the British Association, and Mr. Croft has shown it to the Physical Society. M. Branly also made pastes and solid rods of filings, in Canada balsam and in sulphur, and found them likewise sensitive.*

With me the matter arose somewhat differently, as an outcome of the air-gap detector employed with an electro-scope by Boltzmann. For I had observed in 1889 that

* E. Branly, *Comptes Rendus*, vol. cxi, p. 785; and vol. cxii, p. 90.

two knobs sufficiently close together, far too close to stand any voltage such as an electroscope can show, could, when a spark passed between them, actually cohere; conducting an ordinary bell-ringing current if a single voltaic cell was in circuit; and, if there were no such cell, exhibiting an electromotive force of their own sufficient to disturb a low resistance galvanometer vigorously, and sometimes requiring a faintly perceptible amount of force to detach them. The experiment was described to the Institution of Electrical Engineers,* and Professor Hughes said he had observed the same thing.

Well, this arrangement, which I call a coherer, is the most astonishingly sensitive detector of Hertz waves. It differs from an actual air-gap in that the insulating film is not really insulating; the film breaks down not only much more easily, but also in a less discontinuous and more permanent manner, than an air-gap. A tube of filings, being a series of bad contacts, clearly works on the same plan; and though a tube of filings is by no means so sensitive, yet it is in many respects easier to work with, and, except for very feeble stimuli, is more metrical. If the filings used are coarse, say turnings or borings, the tube approximates to a single coherer; if they are fine, it has a larger range of sensibility. In every case what these receivers feel are sudden jerks of current; smooth sinuous vibrations are ineffective. They seem to me to respond best to waves a few inches long, but doubtless that is determined chiefly by the dimensions of some conductor with which they happen to be associated.

I picture to myself the action as follows:—Suppose two fairly clean pieces of metal in light contact—say two

* *Journal Institution of Electrical Engineers*, 1890, vol. xix, pp. 352-4; or *Lightning Conductors and Lightning Guards* (Whittaker), pp. 382-4. See also *Phil. Mag.*, January, 1894.

pieces of iron—connected to a single voltaic cell ; a film of what may be called oxide intervenes between the surfaces, so that only an insignificant current is allowed to pass, because a volt or two is insufficient to break down the insulating film, except perhaps at one or two atoms.* If the film is not permitted to conduct at all, it is not very sensitive ; the most sensitive condition is obtained when an infinitesimal current passes, strong enough just to show on a moderate galvanometer.

Now let the slightest surging occur, say by reason of a sphere being charged and discharged at a distance of forty yards ; the film at once breaks down—perhaps not completely, that is a question of intensity—but permanently. As I imagine, more molecules get within each other's range, incipient cohesion sets in, and the momentary electric quiver acts somewhat like a flux. It is a singular variety of electric welding. A stronger stimulus enables more molecules to hold on, the process is surprisingly metrical ; and, as far as I roughly know at present, the change of resistance is proportional to the energy of the electric radiation, from a source of given frequency.

It is to be specially noted that a battery current is not needed to *effect* the cohesion, only to demonstrate it. The battery can be applied after the spark has occurred, and the resistance will be found changed as much as if the battery had been on all the time.

The incipient cohesion electrically caused can be mechanically destroyed. Sound vibrations or any other feeble mechanical disturbances, such as scratches or taps, are well adapted to restore the contact to its original high-resistance sensitive condition. The more feeble the electrical disturbance the slighter is the corresponding mechanical stimulus needed for restoration. When working

* See *Phil. Mag.*, Jan., 1894, p. 94.

with the radiating sphere at a distance of forty yards out of window, I could not for this reason shout to my assistant, to cause him to press the key of the coil and make a spark, but I showed him a duster instead, this being a silent signal which had no disturbing effect on the coherer or tube of filings. I mention 40 yards, because that was one of the first out-door experiments; but I should think that something more like half a mile was nearer the limit of sensitiveness. However, this is a rash statement not at present verified. At 40 or 60 yards the exciting spark could be distinctly heard, and it was interesting to watch the spot of light begin its long excursion and actually travel a distance of 2 inches or 3 inches before the sound arrived. This experiment proved definitely enough that the efficient cause travelled quicker than sound, and disposed completely of any sceptical doubts as to sound-waves being, perhaps, the real cause of the phenomenon.

Invariably, when the receiver is in good condition, sound or other mechanical disturbance acts one way, viz., in the direction of increasing resistance, while electrical radiation or jerks act the other way, decreasing it. While getting the receiver into condition, or when it is getting out of order, vibrations, and sometimes electric discharges, act irregularly: and an occasional good shaking does the filings good. I have taken rough measurements of the resistance, by the simple process of restoring the original galvanometer deflection by adding or removing resistance coils. A $\frac{1}{2}$ -inch tube, 8 inches long, of selected iron turnings had a resistance of 2500 ohms in the sensitive state. A feeble stimulus, caused by a distant electrophorus spark, brought it down 400 ohms. A rather stronger one reduced it by 500 or 600, while a trace of spark given to a point of the circuit itself, ran it down 1400 ohms.

And notice here that our model eye has a well-defined range of vision. It cannot see waves too long for it. The powerful disturbance caused by the violent flashes of a Wimshurst or Voss machine it is blind to. If the knobs of the machine are well polished it will respond to some high harmonics, due to vibrations in the terminal rods; and these are the vibrations to which it responds when excited simply by an induction coil. The coil should have knobs instead of points. Sparks from points or dirty knobs hardly excite the coherer at all. But hold a well-polished sphere or third knob between even the dirty knobs of a Voss machine, and the coherer responds at once to the surgings got up in it.

Feeble short sparks, again, are often more powerful exciters than are strong long ones. I suppose because they are more sudden.

This is instructively shown with an electrophorus lid. Spark it to a knuckle, and it does very little. Spark it to a knob, and it works well. But now try this experiment:—first spark it to an insulated sphere, there is some effect; discharge the sphere, and take a second spark, without recharging the lid; do this several times; and at last, when the spark is inaudible, invisible, and otherwise imperceptible, the coherer some yards away responds more violently than ever, and the spot of light rushes from the scale.

If a coherer be attached by a side wire to the gas pipes, and an electrophorus spark be given to either the gas pipes or the water pipes, or even to the hot-water system in any other room of the building, the coherer responds.

Observe how simple the production and detection of Hertz waves are now. An electrophorus or a frictional machine serves to excite them; a voltaic cell, a rough

galvanometer, and a bad contact serve to detect them. Indeed, they might have been observed at the beginning of the century, before galvanometers were known. A frog's leg, or an iodide of starch paper would do almost as well.

A bad contact was at one time regarded as a simple nuisance, because of the singularly uncertain and capricious character of the current transmitted by it. Hughes observed its sensitiveness to sound waves, and it became the microphone. Now it turns out to be sensitive to electric waves, if it be made of any oxidisable metal (not of carbon),* and we have an instrument which might be called a micro-something, but which, as it appears to act by cohesion, I call at present a coherer. Perhaps some of the capriciousness of an anathematised bad contact was sometimes due to the fact that it was responding to stray electric radiation.

The breaking down of cohesion by mechanical tremor is an ancient process, observed on a large scale by engineers in railway axles and girders; indeed, the cutting of small girders by persistent blows of hammer and chisel reminded me the other day of the tapping back of our cohering surfaces after they have been exposed to the welding effect of an electric jerk.

If a coherer is shut up in a complete metallic enclosure, waves cannot get at it, but if wires are led from it to an outside ordinary galvanometer, it remains nearly as sensitive as it was before (nearly, not quite), for the circuit picks up the waves and they run along the

* Fitzgerald tells me that he has succeeded with carbon also. My experience is that the less oxidisable the metal, the more sensitive and also the more troublesome is the detector. Mr. Robinson has now made me a hydrogen vacuum tube of brass filings, which beats the coherer for sensitiveness. I wish to express my obligation to Mr. Edward E. Robinson for his extremely competent aid with all these experiments.

insulated wires into the closed box. To screen it effectively, it is necessary to enclose battery and galvanometer and every bit of wire connection; the only thing that may be left outside is the needle of the galvanometer. Accordingly, here we have a compact arrangement of battery and coil and coherer, all shut up in a copper box. The coil is fixed against the side of the box at such height that it can act conveniently on an outside suspended compass needle. The slow action of the coil has no difficulty in getting through copper, as everyone knows; only a perfect conductor could screen off that, but the Hertz waves are effectively kept out by sheet copper.

It must be said, however, that the box must be exceedingly well closed for the screening to be perfect. The very narrowest chink permits their entrance, and at one time I thought I should have to solder a lid on before they could be kept out entirely. Clamping a copper lid on to a flange in six places was not enough. But by the use of pads of tinfoil, chinks can be avoided, and the inside of the box becomes then electrically dark.

If even an inch of the circuit protrudes, it at once becomes slightly sensitive again; and if a mere single wire protrudes through the box, provided it is insulated where it passes through, the waves will utilise it as a speaking tube, and run blithely in. And this whether the wire be connected to anything inside or not, though it acts more strongly when connected.

In careful experiments, where the galvanometer is protected in one copper box and the coherer in another, the wires connecting the two must be encased in a metal tube, and this tube must be well connected with the metal of both enclosures, if nothing is to get in but what is wanted.

Similarly, when definite radiation is desired, it is well

to put the radiator in a copper hat, open in only one direction. And in order to guard against reflected and collateral surgings running along the wires which pass outside to the exciting coil and battery, as they are liable to do, I am accustomed to put all these things in a packing case lined with tinfoil, to the outside of which the sending hat is fixed, and to pull the key of the primary exciting circuit by a string from outside.

Even then, with the lid of the hat well clamped on, something gets out, but it is not enough to cause serious disturbance of qualitative results. The sender must evidently be thought of as emitting a momentary blaze of light which escapes through every chink. Or, indeed, since the waves are some inches long, the difficulty of keeping them out of an enclosure may be likened to the difficulty of excluding sound; though the difficulty is not quite so great as that, since a reasonable thickness of metal is really opaque. I fancied once or twice I detected a trace of transparency in such metal sheets as ordinary tinplate, but unnoticed chinks elsewhere may have deceived me. [Further investigation fails to detect real transparency even in thin tinfoil.]

One thing in this connection is noticeable, and that is how little radiation gets either in or out of a small round hole. A narrow long chink in the receiver box lets in a lot; a round hole the size of a shilling lets in hardly any, unless indeed a bit of insulated wire protrudes through it like a collecting ear trumpet.

It may be asked how the waves get out of the metal tube of an electric gas-lighter. But they do not; they get out through the handle, which being of ebonite is transparent. Wrap up the handle tightly in tinfoil, and a gas-lighter is powerless.

OPTICAL EXPERIMENTS.

And now, in conclusion, I will show some of the ordinary optical experiments with Hertz waves, using as source either one of two devices: either a 5-inch sphere with sparks to ends of a diameter, an arrangement which emits 7-inch waves, but of so dead-beat a character that it is wise to enclose it in a copper hat to prolong them and send them out in the desired direction; or else a 2-inch hollow cylinder with spark knobs at ends of an internal diameter. This last emits 3-inch waves of a very fairly persistent character, but with nothing like the intensity of one of the outside radiators.

As receiver there is no need to use anything sensitive, so I employ a glass tube full of coarse iron filings, put at the back of a copper hat with its mouth turned well askew to the source, which is put outside the door at a distance of some yards, so that only a little direct radiation can reach the tube. Sometimes the tube is put lengthways in the hat instead of crossways, which makes it less sensitive, and has also the advantage of doing away with the polarising, or rather analysing power of a crossway tube.

The radiation from the sphere is still too strong, but it can be stopped down by a diaphragm plate with holes in it of varying size, clamped on the sending box.

Having thus reduced the excursion of a spot of light to a foot or so, a metal plate is held as reflector, and at once the spot travels a couple of yards. A wet cloth reflects something, but a thin glass plate, if dry, reflects next to nothing, being, as is well known, too thin to give anything but "the black spot." I have fancied that it reflects something of the 3-inch waves.

With reference to the reflecting power of different substances it may be interesting to give the following

numbers, showing the motion of the spot of light when 8-inch waves were reflected into the copper hat, the angle of incidence being about 45° , by the following mirrors:—

Sheet of window glass	0 or at most 1 division.
Human body	7 divisions.
Drawing board	12 "
Towel soaked with tap-water	12 "
Tea-paper (lead ?)	40 "
Dutch metal paper	70 "
Tinfoil	80 "
Sheet copper	100 and up against stops.

A block of paraffin about a cubic foot in volume is cast into the shape of a prism with angles 75° , 60° , and 45° . Using the large angle, the rays are refracted into the receiving hat, and produce an effect much larger than when the prism is removed.

An ordinary 9-inch glass lens is next placed near the source, and by means of the light of a taper it is focussed between source and receiver. The lens is seen to increase the effect by concentrating the electric radiation.

The lens helps us to set correctly an 18-inch circular copper disc in position for showing the bright diffraction spot. Removing the disc, the effect is much the same as when it was present; in accordance with the theory of Poisson. Add the lens and the effect is greater.

With a diffraction grating of copper strips 2 in. broad and 2 in. apart, I have not yet succeeded in getting good results. It is difficult to get sharp nodes and interference effects with these sensitive detectors in a room. I expect to do better when I can try out of doors away from so many reflecting surfaces; indoors it is like trying delicate optical experiments in a small whitewashed chamber well supplied with looking-glasses; nor have I ever succeeded in getting clear concentration with this zone-plate having

Newton's rings fixed to it in tinfoil. But really there is nothing of much interest now in diffraction effects except the demonstration of the waves and the measure of their length. There was immense interest in Hertz's time, because then the wave character of the radiation had to be proved; but every possible kind of wave must give interference and diffraction effects, and their theory is, so to say, worked out. More interest attaches to polarisation, double refraction and dispersion experiments.

Polarisation experiments are easy enough. Radiation from a sphere is already strongly polarised, and the tube acts as a partial analyser, responding much more vigorously when its length is parallel to the line of sparks than when they are crossed; but a convenient extra polariser is a grid of wires something like what was used by Hertz, only on a much smaller scale; say an 18-inch octagonal frame of copper strip with a harp of parallel copper wires. The spark-line of the radiator being set at 45° , a vertical grid placed over receiver reduces the deflection to about one-half, and a crossed grid over the source reduces it to nearly nothing.

Rotating either grid a little, rapidly increases the effect, which becomes a maximum when they are parallel. The interposition of a third grid, with its wires at 45° between two crossed grids, restores some of the obliterated effect. So does the interposition of a thick slab of wood, with the grain at 45° .

Radiation reflected from a grid is strongly polarised, of course, in a plane normal to that of the radiation which gets through it. They are thus analagous in their effect to Nicols, or to a pile of plates.

The electric vibrations which get through these grids are at right angles to the wires. Vibrations parallel to the wires are reflected or absorbed.

To demonstrate that the so-called plane of polarisation of the radiation transmitted by a grid is at right angles to the electric vibration,* *i.e.*, that when light is reflected from the boundary of a transparent substance at the polarising angle, the electric vibrations of the reflected beam are perpendicular to the plane of reflection, I use the same paraffin prism as before; but this time I use its largest face as a reflector, and set it at something near the polarising angle. When the line of wires of the grid over the mouth of the emitter is parallel to the plane of incidence, in which case the electric vibrations are perpendicular to the plane of incidence, plenty of radiation is reflected by the paraffin face. Turning the grid so that the electric vibrations are in the plane of incidence, we find that the paraffin surface set at the proper angle is able to reflect hardly anything. In other words, the vibrations contemplated by Fresnel are the electric vibrations; those dealt with by McCullagh are the magnetic ones.

Thus are some of the surmises of genius verified and made obvious to the wayfaring man.

* *Cf.* Trouton, in *Nature*, vol. xxxix, p. 393; and many optical experiments by Mr. Trouton, vol. xl, p. 398. Also by Klemencik (*Wied. Ann.* vol. xlv), Righi (*Acc. dei Lincei*, vol. xi), and Elster and Geitel (*Phil. Mag.*, July, 1894, p. 158).

MODERN ASPECTS OF HEREDITY.

BY J. C. M. GIVEN, M.D., LOND.

It is hardly possible now-a-days to take up any newspaper, magazine or modern novel, or to see any new play, without coming across some allusion to heredity; and as is the fate of all new and much-talked-of theories, a large amount of nonsense is being said and written about this subject. Of late years an immense quantity of facts regarding heredity have been collected, and numerous theories to explain its scope and mode of action have been propounded; and it is the purpose of my Paper to try to put before you some of the most important of these facts, and some of the more reliable of these theories.

The influence of heredity is no new discovery, and the facts that the child resembles its parent, and that the acorn produces the oak and no other form of vegetable life, are as old as human intelligence; but the extent to which our bodily forms, our mental characteristics, and our social ordinances, nay, even our modes of thought and systems of philosophy, are moulded and formed by hereditary influences, and the proportionately small part which education and acquired characters take in this process, is not so well recognised.

Ibsen is probably responsible to a large extent for popularising this subject, and his plays, such as *Ghosts*, *Romersholt* and *A Doll's House* are good examples of the unreliable and loose ways in which scientific facts may be misused in the treatment of social relations by a writer of superficial and inexact knowledge. Of the literary value

of his work I have nothing to say, but one has only to read his plays carefully to see the forced and ridiculous manner he uses the terms and phrases of heredity. It is also worthy of note that Ibsen confines himself to portraying the transmission of bad and disagreeable qualities, and, while none of his characters appears to inherit anything desirable from their parents, they all have plenty of faults, the existence of which is explained by ancestral taints. Zola has also given us a study in heredity in his long series of novels depicting the history and development of the different members of the Rougon-Macquart family, culminating in *Dr. Pascal*, the last of the series. His methods and applications are more reliable and less exaggerated than Ibsen's, but he, too, seems determined to paint most prominently the disagreeable side of the picture.

We have not far to seek for the cause which gave this impetus to the study of heredity, when Darwin, and independently of him, Wallace, formulated his theory of the origin of species, the chief factor in this process was heredity, modified by natural selection. Thus the necessity for collecting data on this subject, and determining its scope became evident. The researches of Galton, who was one of the earliest in the field, are numerous and interesting. He examined the family histories of different series of individuals who were specially gifted, either intellectually or physically, in order to ascertain to what extent their children retained any of the parental qualities.

Thus, he took the judges of England from 1660 to 1865,* this series included 286 judges, whom we may acknowledge to be a peculiarly gifted class of men, seeing the process of selection they have to go through before

* *Hereditary Genius*.

attaining that position. Of this series of 286 individuals, 109 were found to have relatives who had attained eminence in some line or other, these relatives numbering 124. Again, taking the most eminent of this same series, namely, the lord chancellors, who were 30 in number, we find that 24 of them had eminent relatives. Thus, while 36 per cent. of the whole series of judges had eminent relatives, 80 per cent. of the lord chancellors had them. Again, out of the 286 judges more than one in every nine was father, son or brother to another judge, and other high legal relationships were even more common. Surely these figures show that the peculiar type of ability that is necessary to a judge is often transmitted by descent. But the eminence of their relatives was by no means confined to the practice of law, as among them we find such names as the great Duke of Marlborough, Lord Clive, Coleridge, Cowper, Waller, Herbert, Milton, Fielding, Maria Edgeworth, Gibbon, Dr. Harvey the discoverer of circulation of the blood, Sir Benjamin Brodie the surgeon, and Copley the painter.

It might be urged against such a series that the advantages of family influence would be so strong that relatives would rise to positions which otherwise they could not attain. I do not think this objection is valid, as important and responsible positions are not filled in such large numbers, in this country at all events, by incompetent men; and, as an example of the small influence which environment and social advantages have in causing men to rise to eminence, Galton mentions the fact of the very rare occasions in which the distant relatives, or individuals not connected with them, who have been adopted by the Popes, have risen to important positions, although this practice of nepotism, which was common in order to supply the place of offspring with high Roman

ecclesiastics, placed the adopted individuals in positions most favourable to their becoming eminent.

By following up the same lines of result in other groups of individuals, among musicians, scientists, literary men, and athletes, the same results were obtained all round, and in order to get a series which he could not be suspected of selecting as being favourable to his purpose, Galton took the series of eminent men put down by Auguste Comte in the calendar which he drew up for his religion of humanity. After excluding a few such as Buddha, Homer and St. Paul, about whose relatives we know absolutely nothing, he found no less than 50 per cent. of them to have had distinguished relatives.

The Bach family* was a good instance of the transmission and perpetuation of a special form of ability, namely, music. This family began in 1556 and passed through eight generations, the last known member of it being chapel master to the Queen of Prussia, in 1845. The founder was a baker in Presburg, who amused himself in his spare time with singing and playing, and from him sprang a crowd of musicians who spread over Germany for two centuries, some being composers, and some performers, and nearly all of them organists and church singers; when they became too numerous to live together and had to disperse, they agreed to unite on a fixed day once a year, this custom being preserved among them up to the middle of the eighteenth century, sometimes 120 persons of the name of Bach being present at the same time.

The Titians again were a well known race of painters, producing ten painters of great ability in three generations.

Taking these and similar facts together, Galton calcu-

* Lombroso, *The Man of Genius*.

lated that the chances of kinsmen of illustrious men being or becoming eminent were, in the case of a father, 1 to 6; of a brother, 1 to 7; of a son, 1 to 4; and of a first cousin, 1 to 100. He also found that the chances of kinsfolk through female lines were much less than through male lines, namely, rather less than half; for instance, the chances that the cousin of an illustrious man might rise to eminence, supposing him to be a cousin on the mother's side, are less than half what they would be if he were on the father's side. Thus the Chinese, who reward and honour the parents of children who have proved themselves successful and accomplished, instead of the individuals themselves, appear to know where the real merit lies.

We see from such data as these that the facts of heredity are capable of a much more accurate statement than is generally supposed. Indeed, we might almost say that, given all the peculiarities and qualities of a man's relatives and ancestors, it would be virtually a matter of mathematical calculation to give his component parts, just as a chemist could tell the exact composition of an elaborate carbon compound by knowing the molecular weights and combining capacities of its different elements.

It is a curious fact that colour-blindness is nearly twice as common among quakers as among any other class of men; * the proportion being 5·9 per cent. among quakers, and 3·5 per cent. among others. This sect was founded a few centuries back by a body of men who considered that the fine arts were worldly dross, and were presumably deficient in artistic sense, and perhaps in colour appreciation. They closely intermarried among themselves, and hence the natural deficiency was perpetuated and intensified. It is true that Dr. Young, who formulated

* Galton, *Human Faculties*.

the undulation theory of light, was a quaker, but he showed his disagreement with their tenets by marrying out of the order, and thus excluding himself.

By means of a series of letters of enquiry which Galton* sent to large numbers of individuals, he obtained details of the temperaments of the different members of a large number of families, the series including 1,981 individuals. The result showed that good and bad temper is transmitted by descent, and that when both parents were recorded as good tempered, 80 per cent. of the children were good tempered, and 10 per cent. bad tempered, whereas, when both parents were recorded as bad tempered, only 4 per cent. of the children were good tempered, and 50 per cent. bad tempered.

Let us now see what evidence can be brought forward to show that criminal characteristics may be inherited. Everyone admits that it is so, and the hereditary nature of crime has been an axiom since the time of the old Hebrews, whose conception of God was that he visited the sins of the parents upon the children unto the third and fourth generation.

But the question is a more intricate one than it at first appears, firstly, because it is much more difficult to separate the influence of environment from inherited tendencies, than in the instances we have been up to now considering, and secondly, because the criminal taint appears to be a step in a course of degeneration, in which it is not transmitted unchanged, but is replaced by another stage of the process. It is true that Max Nordau, in his recent work,† shows that many geniuses are degenerate, but genius itself is not a symptom of degeneration, while crime is so. As an example of how difficult it is to separate the influence of surrounding circumstances from

* *Natural Inheritance.*

† *Degeneration.*

inherited tendencies, take the case quoted by Lombroso as a classical type of moral insanity. The individual in question was named Sbro. His grandfather had committed murder from jealousy, his father shot a woman dead in order to test the capacity of a gun, and he in his turn killed his father and his brother; who could say in such a case which factor was the predominant one, though the presence of both is evident?

In tracing the family histories of criminals, one finds that a large percentage have insane ancestors, the proportion varying with different investigators* from 15 to 40 per cent.; and again as a predecessor of crime we commonly find alcoholism; for example, of 4,000 criminals who passed through the Elmira Reformatory at New York, there was a clear history of alcoholism in 38.7 per cent. Thus, the trio, alcoholism, crime and insanity are nearly always found together, the order of appearance may vary, but the sequence, if looked for, can usually be found.

But alcoholism must not necessarily be put down as the cause of the other two, as is too often done. Probably the very fact of alcoholic indulgence in many cases is the first sign of mental deterioration, though undoubtedly the excess will tend to hasten the result, thus forming a vicious circle of action.

The most colossal instance I can find of the transmission of criminal tendencies is the oft-quoted one of the Jukes family.† The founder was a descendant of an early Dutch settler in New York State, he was a drunkard, and of the five generations following him, 709 individuals have been traced, while probably the total was nearer 1,200. Of these, 200 were convicted thieves and assassins, 248 were physically or mentally deficient, and 90 were prosti-

* Havelock Ellis, *The Criminal*.

† Havelock Ellis, *The Criminal*.

tutes. Of this awful family only 20 were skilled workmen, and 10 of these are said to have learnt their trade in prison. They were calculated to have cost the state a million and a quarter dollars.

A great deal has been said and written on the subject of criminal anthropology, and the attempt has been made to establish a series of physical types to which criminals correspond. There is no doubt that bodily peculiarities are common among them, such as in the shape and size of the head, ears, etc., and also in features, but the existence of any definite relation between outward appearances and mental condition is not easy to make out. One thing, however, is certain, namely, that physical and bodily defects are common in the criminal classes, and are transmitted by descent, showing that mental and physical deterioration are going on hand in hand. As an instance, take one family quoted by Havelock Ellis.* The father an alcoholic, and convicted of fraud, the mother normal, two sons convicted of violence and fraud, a third of highway robbery, six children died young, two more markedly deformed, one sister insane, another a prostitute.

It would be easy to go on enumerating other instances to show how our various mental and bodily characters are transmitted from generation to generation, and a very large and important field we have left untouched in the study of the transmission of diseases, such as consumption, but the topic is hardly suited to a general audience.

We will now glance at the explanation and theories which have been advanced to explain the mode of action of the peculiar process which we call heredity.

All the earlier writers on this subject took it for granted that an individual might transmit any one of the peculiarities or qualities which he possessed to his

* *The Criminal*.

children; thus Lamarck supposed that a child possessed all the potentialities of both its parents, and on a similar supposition, Darwin founded his theory of Pangenesis, in which he laid it down that all the cells of the body gave off minute gemmules or buds, which, circulating in the blood, came to rest in the germ which was to perpetuate the individual. Thus, according to this theory, the minute spot in the yolk of an egg, which is about to develop into a chick, contains innumerable small particles, each of which represents and contains the characteristics of every different tissue of the parent hen. Herbert Spencer and Galton have also elaborated theories on the question, but the most interesting, because it is the most revolutionary and original, is that of Weismann, which he terms the theory of the continuity of the germplasm. This theory differs from all others in one essential point, namely, that it states that acquired characters cannot under any circumstances be inherited, and the only way in which variation in offspring can occur is by the blending or mutual nullification of ancestral traits in the parents.

Herbert Spencer, in his theory of "Physiological Units," is strongly opposed to this; while Galton, in his theory of "Stirp," would seem to favour it, except that he would allow the occasional transmission of acquired characters in special cases. If Weismann's theory be true, then education and surrounding circumstances may improve and modify an individual, but as the individual cannot transmit these acquired improvements to his progeny, the race itself is not improved. We may enlighten our minds by culture and ennoble our characters by self-restraint, but we cannot hope by such means to make the task any easier for our children—they must begin where we started from. The child of naturally gifted parents will be more gifted than the children of mediocrity, but if

mediocrity chooses to improve itself by education, it cannot expect that improvement to be perpetuated in its sons and daughters. Each of us is a sort of mosaic work of ancestral characters, and individuals differ in the arrangement of the pattern, and in the number and colour of the different stones, and the question at issue is, can education and environment do anything beyond shaking the kaleidoscope and changing the arrangement of the fragments?

In order to illustrate this principle, I will give two recorded instances: one showing the inheritance of a fortuitous variation, the other the inheritance of an acquired variation—the latter instance, of course, would be rejected by the followers of Weismann. As an instance of the former kind, take the case of Gratio Kelleia, mentioned by Herbert Spencer,* who had had six fingers on one hand. He transmitted this peculiarity in different degrees to several of his children and some of his grandchildren. As an instance of the latter kind, Mivart records how a certain Dr. Vossler relates that his mother injured the ring finger of her right hand by squeezing it in a door, so that it was bent between the last and middle joints; two of her sons were born with the very same peculiarity, and Dr. Vossler was one of them. (*See Diagram I.*)

Unfortunately, at present these questions seem to be a long way from settlement. Weismann appears to have shown that many cases brought forward by Darwin as examples of the transmission of acquired characters are only the result of selection, and we can all at once cite instances where the continuous action of environment, going on for long periods, has still produced no change in physical forms. Thus, the docking of tails for many generations has not shortened the caudal appendages of

* *Principles of Biology.*

sheep, horses or dogs. The Chinese infant's foot is not distorted at birth, in spite of the treatment the feet of its ancestors have undergone for hundreds of years; and Indian children still are born with rounded heads, although their parents' skulls have been flattened artificially in their infancy for many ages.

If, then, in the more exact realms of zoology and the study of physical forms the real mode of action of heredity is so uncertain, we may expect to have still less sure ground to stand upon when considering its action in mental and social progress. Yet here, again, we find evidence that seems to point to the fact that acquired characters are not transmitted. For if we represent the sum total of what our forefathers have both inherited and acquired, we should surely be intellectual giants instead of the very ordinary mortals that most of us are. The usual assumption is, that mental development is an accurate index of racial progress, but if this is so, how do we compare with former civilizations, such as the Greek, or even the Egyptian? Mr. Lecky regards it as one of the anomalies of history which we can only imperfectly explain, "that within the narrow limits and scanty population of the Greek States there should have arisen men who, in almost every conceivable form of genius, in philosophy, in epic, dramatic and lyric poetry, in written and spoken eloquence, in statesmanship, in sculpture, in painting, and probably also in music, attained almost or altogether the highest limit of human perfection." *

Galton,† in speaking of the same subject, says:—"It follows . . . that the average ability of the Athenian race is, on the lowest possible estimate, very nearly two grades higher than our own; that is almost as much as our race is above that of the African negro. This estimate

* Lecky, *European Morals*.

† *Hereditary Genius*.

which may seem prodigious to some, is confirmed by the quick intelligence and high culture of the Athenian commonalty, before whom literary works were recited, and works of art exhibited, of a far more severe character than could be appreciated by the average of our race, the calibre of whose intellect is easily gauged by a glance at the contents of a railway book-stall."

The apparent superiority of western civilisation to all that has preceded it, is almost entirely cumulative in nature, that is to say, we do things better now because we have at hand the entire experience and the inventive capacities of former generations ready to be used as tools, Is the bricklayer of to-day the mental superior of the ancient Egyptian because he can build a better wall with fire-burnt bricks and mortar than the latter could with sun-dried clay and straw?

Let us now consider a few details of Weismann's theory: he supposes that the structure of an organism is determined by certain elements or "ids," as he calls them, which are transmitted in equal quantities by both parents. These elements may be mutually destructive or the reverse to each other, and the final result depends upon the struggle for predominance between them. To take an example from the vegetable kingdom, he supposes that the ultimate structure of a plant is permanently and entirely fixed in the seed.

The German botanist, Focke,* from the observation of hybrids in plants, considers that the parental elements may be combined in three different ways in the resulting hybrid.

1. The mean between both parents may be maintained throughout all parts of the plant.
2. The characters of one of the parents may predominate.

* Weismann, *The Germplasm*.

3. Certain parts of the hybrid may exhibit the characters of one parent, and certain parts those of the other. (See Diagram II.)

The first of these three possible combinations is most common, and to show how exactly equally the parental elements may combine, Weismann takes the case of the hybrid resulting from crossing two varieties of the tobacco plant, namely, the *nicotiana rustica*, and the *nicotiana paniculata*. The corolla tube of the first of these varieties was 14mm. long, and that of the second was 26mm., while the corolla tube of the hybrid obtained from them was 19mm. long, that is to say the exact mean between the two; and again, in the diameter of the narrowest part of the tube, the hybrid showed the exact mean between its two parents. In order to explain the different ways in which the parental elements or "ids" may combine, Weismann supposes that they may be akin to one another, or mutually aggressive, and that the dominating characteristics will survive in the offspring, while the others will become latent. Thus the hybrid of one of the tobacco plants just mentioned, namely, the *paniculata*, and another variety, the *nicotiana vinciflora*, bore such a resemblance to the latter parent that the peculiarities of the former could hardly be recognised at all. So, in fact, we may imagine a struggle for existence, resulting in the survival of the fittest, taking place among the parental elements, exactly similar to what is taking place in the outer world among individuals, the amount and kind of nourishment, and the local conditions being the environment.

It is usually considered that in the colour of their eyes, children take entirely after one parent or the other, and to a certain extent this is no doubt true, but probably in the majority of cases both parents influence the colour of their

children's eyes. Thus, suppose that the eyes of a mother are blue, and the eyes of a father brown, now the number of elements combining from each parent to form the colour of their child's eyes we may suppose to be equal, but in the brown colour of the iris there is a much larger proportion of true brown pigment than there is of true blue pigment in a blue iris, hence the colour of the child's eyes would be influenced more strongly by brown elements than blue elements, and their resulting colour would be brown, and to a casual observer the child would be said to inherit its father's eyes, whereas both parents had equally contributed, but from the nature of the combining elements one had preponderated over the other. In rare cases the colours may not be blended but separated in different eyes; thus Weismann mentions the case of a family in Swabia where the father was blue eyed and the mother brown eyed, while the daughter had one blue eye and one brown eye; and I myself know of an instance where the child of blue eyed and brown eyed parents respectively had one eye brown and the other divided vertically into two halves, one half being brown and the other blueish grey.

Weismann also uses his theory to explain the phenomena of atavism, or the reversion to ancestral characters. Thus, an organism not unfrequently presents a marked resemblance to a previous ancestor, without resembling either of its immediate parents. It is a well-known fact that hybrids in plants have a great tendency to revert to their ancestral stocks. If a hybrid be fertilized by its own pollen it frequently happens that the resulting plant closely resembles one of the original species instead of the parent hybrid. It may be explained thus: as each parent plant contributes equally to form the original hybrid, when that hybrid combines with itself it may produce a

plant that contains a preponderating amount of one of the original stocks. (*See Diagram III.*)

Though probably no instance of a hybrid producing an exact copy of one of its parents is known, yet this theory would even explain such an extreme case. An instructive example of this occurs in the crossing of human races. Mulattoes who are a cross between white and black races are never quite white or quite black, but when mulattoes and white races are again recrossed, the children do not regularly become less black, but some of them are white and some of them fairly black. The case is rather more complicated when the hybrid is not recrossed with an ancestral stock but with a new species. But we will see how this theory will explain how an organism may closely resemble a grandparent without resembling either of its immediate parents. (*See Diagram IV.*)

Such an instance is of course a very extreme case, but this shows the possibility of its occurring theoretically.

A remarkable case of reversion to type was obtained by Darwin in pigeons. He crossed two mongrels, one the result of a black barb and fantail cross, the other the result of a black barb and a red spot cross. These two mongrel pigeons had not the least blue about them, yet their offspring was of exactly the same blue tint as the ancestral wild rock pigeon from which they have all sprung, and had also the characteristic double black bars on the wings which the rock pigeon has. A similar result is sometimes obtained in the breeding of fowls, where fancy and elaborated varieties suddenly produce specimens presenting all the characteristics of the ancestral *gallus bankiva* from which they have descended.

Reversion is also seen in human beings, as for instance in that peculiar constitutional weakness called the *hemorrhagic diathesis*, where individuals affected show a great

tendency to bleed profusely from very slight injuries, being spoken of in common parlance as bleeders. The subjects of this condition are nearly always males, while the predisposition is only transmitted by female lines, that is to say, that women who have brothers and fathers suffering from it, produce sons who also suffer from it, while they themselves are free.

In connection with the subject of reversion, the remarkable peculiarity called "prepotence" may be mentioned. Certain strongly marked peculiarities may be transmitted through many generations in spite of new blood being constantly introduced, such qualities are then said to be prepotent. Thus, the Napoleonic features were transmitted from some common ancestor of Napoleon Buonaparte and his brothers for at least four generations. The Bourbon nose appeared so persistently in that family as to be notorious.

The question now before us is, do such facts and theories as those we have been considering give us any help towards framing our social laws and relations so that the race may be benefited mentally, morally, or physically? Such, I think, may be admitted at once, and also that we are not making the most of such lessons as may be deducted from them.

If it be true that acquired characters cannot be transmitted, and much evidence seems to point that way, we must not look so much to the education of the individual as to the segregation of bad types and the perpetuation of useful ones. Nowadays, we cannot, like the ancient Greeks, leave the weakly and deformed children exposed to die, but we must take all the more care of them, and compass heaven and earth in our scientific search after methods to prolong their lives, so that they may add their quatum to the defects of their successors.

But, though it is perfectly right that we should do our best for the weaker brother, it is also right that we should prevent him from perpetuating his weakness.

Is our treatment of the chronic criminal and the confirmed alcoholic rational? It consists in punishing him with imprisonment, more or less disagreeable to himself, for shorter or longer periods, in proportion to the extent of his offence. The criminal returns seem to show that this process is a failure, and that imprisonment in a large bulk of cases does not prevent repetition of the crime.*

Thus, in the year ending March 31st, 1894, excluding those admitted on civil processes, 158,232 persons were committed to local prisons in England and Wales; of these 87,388, or 55 per cent., had been previously committed and imprisoned, some of them a few times, some of them scores of times, and 19,895, or about 12·5 per cent., had been previously committed over ten times. Does not this show that the great bulk of our criminal classes are habitual ones? Our present plan is "to make the punishment fit the crime," whereas really it should fit the criminal, and where the criminal is found to be incurable, as in the bulk of such constantly recurring cases he is, he should be permanently confined, not with any revengeful idea of punishment, but simply because he is unable to take his proper place in the social system. Our present system of treating the chronic alcoholic and recurring criminal of the "Jane Cakebread" type is about as rational as if we were to give an epileptic the option of five shillings and costs, or seven days imprisonment, every time he had a fit. The system in vogue in the Elmira Reformatory, New York, is a step in the right direction. Here the length of the sentence depends on the opinion of

* Dr. Strahan, *Westminster Review*, June, 1895.

the prison authorities, modified by certain broad restrictions, according to the nature of the offence, and a case is not discharged until it is thought fit, and then for six months on parole, a place or occupation being usually found.

A few years ago asylums were looked upon as places for the confinement of lunatics, now they are gradually coming to be regarded as hospitals for the treatment of insanity. Our prisons should be looked at from a similar point of view, and it should always be remembered that our hospitals, our asylums, and our prisons will always be inhabited by cases some of which are curable, and some incurable.

From an economic point of view alone such a method would be advisable. I will cite as an example an instance which is taken from this neighbourhood:—"The Chief Constable of Cheshire has given the record of John Ogden, recently dead, who made 130 appearances before the city justices, 86 being for drunkenness and 44 for assaults. Ogden's father appeared before the bench 35 times, a sister 67 times, and another sister 29 times. The father, son, and two sisters were charged 347 times, and it has been estimated that in the expenses of prosecutions, prisons, and poor law maintenance, the Ogden family have cost the City of Chester £2,000."

We have already mentioned the case of the Jukes family, which cost its state 1½ million dollars. If the original offenders had been permanently confined, society would not have been flooded by such broods of criminals, or put to such expense in punishing and maintaining them.

I do not wish to overlook or disparage the importance of the influence exerted by education, but only to insist that it is not the sole or even the most important factor in

racial progress. A splendid work is being done by our reformatory schools in separating the young from their vicious surroundings, and providing a more favourable environment for them to develop in; and it should be noted that, although we may not be able by means of education, which, after all, is only an artificial environment, to instil new and favourable tendencies into individuals which may be perpetuated in their progeny, yet favourable variations are always cropping up, and it should be our object to foster and develop these, so that their possessors may be better armed in the struggle for existence, and hence be able to transmit their advantages in greater numbers than their less endowed contemporaries.

But if, as we have already seen, the advance in western civilisation has not taken place in a directly intellectual line, in what way have we advanced, if we have advanced at all? It would seem that the line which evolution is taking at present amongst races as a whole is toward the development of altruistic and ethical qualities, by means of which the aspirations of the individual are subordinated to those of the community; or, as Benjamin Kidd says,* “The most distinctive feature of human evolution as a whole is that, through the operation of the law of natural selection, the race must continue to grow more and more religious.”

Herbert Spencer would have us believe that we are gradually approaching a sort of moral Utopia, in which all individualism shall have disappeared, and that altruistic motives will come natural to everyone, in fact, that each of us will be a kind of moral automaton, and such is the logical result of supposing that acquired tendencies are transmitted. But if, on the other hand, as Weismann

* *Social Evolution.*

supposes, we cannot inherit them, then, to again quote Kidd, "is the whole human race caught up in that struggle and rivalry of life which has been in progress from the beginning, then must the rivalry of existence continue, humanised as to conditions it may be, but immutable and inevitable to the end."

But with a more rational treatment of the criminal classes, and with a more intelligent use of education, we have by no means exhausted our powers of influencing the progress of civilisation. The question of marriage selection confers on individuals the power of influencing their posterity, and the time is approaching when this must be recognised both by the State and by the individual.

Before pursuing this matter further, it would be well to examine the question of consanguinity and the marriage of cousins. It is popularly supposed that the marriage of first cousins is usually followed by children more or less deficient mentally or physically, but in spite of the careful investigation which competent observers have given to this subject, very little definite evidence is forthcoming in its favour, and it appears that if the ancestral stock is healthy, the children are likely to be healthy too, but that if there is a diseased strain present, then it will be intensified in the children. How firmly this idea was fixed is shown by the strict laws which were enforced by the Romish Church in Scotland before the Reformation.* At that time persons within eight degrees of consanguinity, or, in other words, who had a common great-great-grandfather or great-great-grandmother might not legally wed, and even beyond this, the cousinships involved in the spiritual relationships of godparents and sponsors were considered a bar to matrimony. So bad was the state of

* Burton, *History of Scotland*, vol. iii.

things at this time that the Archbishop of St. Andrews, writing in 1554 for the information of the Pope, stated that such was the cousinship among the Scotch families that it was almost impossible to find a match for one of good birth that should not come within the prohibited degrees.

Dr. Mercier* has laid it down that "There is a certain degree of dissimilarity between parents which is most favourable for the production of well-organised offspring, and parents who are more similar or more dissimilar than this will have offspring whose organisation will be inferior in proportion to the distance of the parents from the most favourable point." Thus widely distinct species are sterile when crossed, and those which are rather nearer may produce offspring, but the offspring itself is sterile, and the same tendency is shown when the two parents are too closely related.

But while there cannot be close similarity without close blood-relationship, there may be close blood-relationship without close similarity. Thus, if two brothers closely resembled one parent, and each of them had children who both reverted to the same grandparent whom their father resembled, then such first cousins would show both close similarity and close blood-relationship, and a marriage between them would probably result in poorly organised children. But such a case must be infinitely rare, as it is necessary that each first cousin must revert to a common ancestor, and that such cousins must then marry. (*See Diagram V.*)

This would explain the fact that such a case sometimes does occur, probably most of us could cite an instance of it, but that it is infinitely more uncommon than is generally supposed. So we may assume that where first

* *Sanity and Insanity.*

cousins are very similar in temperament or appearance, it would be unwise of them to marry, but that in the bulk of cases, where such similarity does not exist, no harm would result.

It is a curious fact that the other extreme of this question, namely, that too great dissimilarity between parents is harmful to their offspring is shown when widely separated human races are crossed. It is notorious that half-breeds commonly show very disagreeable mental qualities, and Livingstone remarked that the half-castes of Africa are much more cruel than either the native blacks or the Portuguese from whom they sprang. An inhabitant once remarked to Livingstone, "God made the white men, and God made the black men, but the devil made the half-castes."

Steady advance in racial progress over long periods of time can never occur until it is recognised that the interests of the individual must be subordinated, not only to those of the community as then existing, but also to those of its successors. The older civilisations either decayed or stood still from not recognising this fact, and such might easily be the fate of our present exalted social *regime*; indeed, there are not wanting prophets who state that such is actually occurring, and who point to such facts as the depopulation of France, and the "degeneration" so loudly spoken of by Max Nordau, as showing that we are following in the steps of ancient Greece and Rome.

Possibly such pessimistic views are not justified at present, but unless we begin to look ahead more than we are doing now, there will be more ground for forming such an opinion. In no direction have we such a powerful lever at hand for improvement as in impressing on people the importance of not recruiting the race from diseased and weakly stocks. What is the use of our waging war with

microbes, of our elaborate sanitary appliances and regulations, of our penalising crime, and of our treatment of insanity, if we allow the consumptive and the alcoholic, the criminal and the neurotic, to perpetuate these evils in their posterity? Marriage should be looked upon, and legislated for, as an altruistic compact, and not merely as one for the convenience and benefit of the two individuals concerned.

In conclusion, let me quote the last few sentences of Prof. Haycraft's Milroy Lecture, 1894. He says, "It seems to me that, provided we accept 'selection,' we are bound to endeavour to apply this remedy as a means for producing race progression, even if the present physical deterioration be not so great as I am inclined to believe, even if there be no signs of deterioration at all, we have in selective agencies a certain and tried means of improvement. I venture to think that it is not premature to ask the public to consider seriously the question of segregation, and the prevention of the immigration of the incapables of other nations. The transmission of diseased and feeble strains is a real and tangible evil, we all know too well of its existence, and all would be willing to prevent it. Once people have learnt to look farther ahead and realise how much of the happiness of the future depends upon their present action, I cannot but believe that this will affect their attitude in respect to marriage. Not only will the feeble and diseased realise fully the consequences of hereditary transmissions, and dread their consequences, but if they marry, they will do so in face of public opinion, perhaps public rule."

DESCRIPTION OF DIAGRAMS.

Diagram I, to represent the transmission of acquired characters (A), and the modification of type by natural selection (B). (Taken from Prof. Huxley's Milroy lecture, 1894).

In A we have a person of rounded proportion who has two children. Environment is represented by a board with holes in it through which they have to pass in order to perpetuate their species. These two children, by squeezing, get through their holes, and themselves have children, who inherit the acquired thinness of their parents, this thinness then being an advantage.

In B we have a similar rounded individual who has two children who vary, one being oval, the other round. The oval one can get through his hole, and hence has children who again vary. The round children not getting through, while the oval ones do so, and transmit their characters to some of their descendants.

Diagram II, to represent various modes of blending of parental qualities.

A represents the first case in which the mean between both parents is maintained through all parts of the offspring.

B represents the third case in which the offspring inherits equally from each parent, but in some parts resembles one parent, and in other parts the other parent.

C and D represent the two varieties of the second case, the red elements predominating in one case, the blue elements in the other.

Diagram III, to represent reversion in hybrids.

Let a blue and a red parent (A and B) have an offspring C, this hybrid will have equal quantities of red and blue elements, but let us suppose that the red elements are the strongest, then they will stamp the hybrid with their characters, so that C will resemble B and not A. Now if the hybrid C be fertilized by its own pollen, or what, theoretically, is the same thing, crossed with an identical individual, C₁, then they may divide in the way indicated in the diagram, the resulting hybrid, D, will be blue, and resemble A, which its parent C did not resemble.

Diagram IV, to represent reversion to a grand-parent.

Let A and B have offspring C, the latter having equal quantities of blue and red elements, but let the red be the strongest, so that C resembles B and not A. Then let C cross with D, the different elements may manifestly divide as in the manner indicated, and the offspring E may consist entirely of blue and white elements. Now, though the blue elements were not strong enough to overcome the red elements in C, yet they may be strong enough to overcome the white elements in E, so that E will have strongly marked blue characters, while neither of its parents, C or D, showed them, and hence E would be said to revert to its grand-parent A.

Diagram V, to represent the lines of descent when two first cousins (D and E) show close similarity, that is to say, they both revert to a common grand-parent (A). (From Dr. Mercier's "Sanity and Insanity").

Diagram. I.

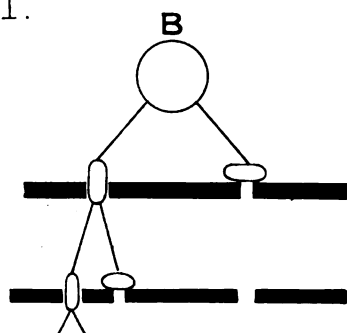
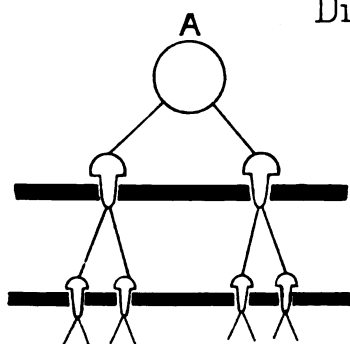


Diagram II.

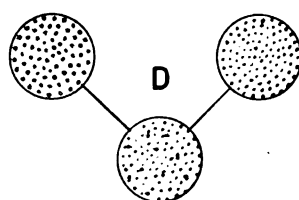
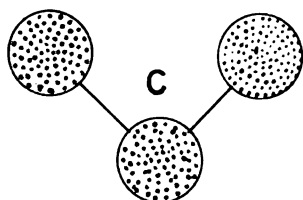
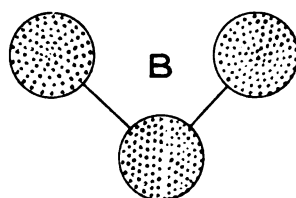
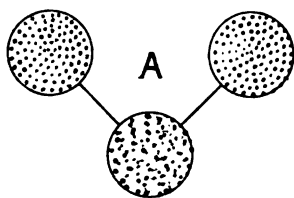


Diagram III.

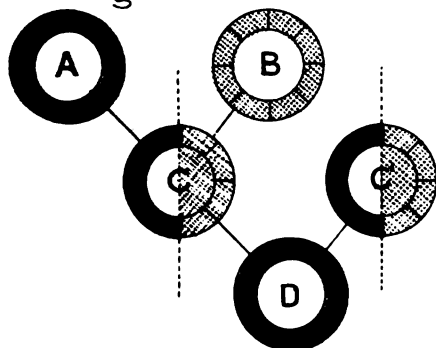


Diagram IV.

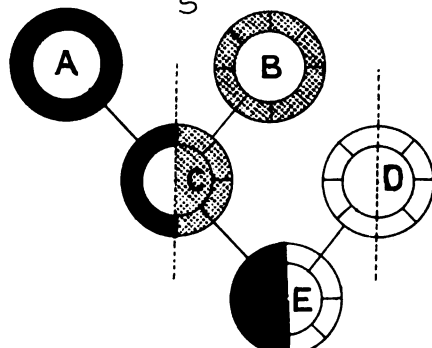
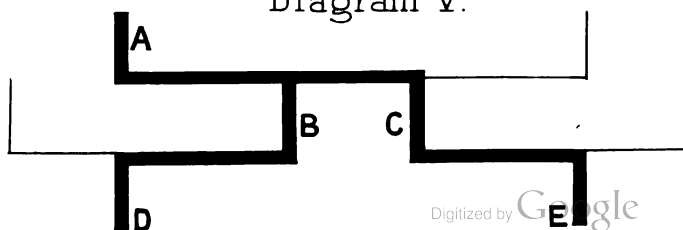


Diagram V.



A STUDY OF EUPHUISM.

BY J. MURRAY MOORE, M.D., F.R.G.S.

THE latter years of this nineteenth century are being marked by two dissimilar features of literary fashion. On the one hand, a slangy, Americanised, and slipshod style of English prevails in our newspapers and cheap magazines: on the other hand, great scholars, who devote themselves to the study of our *real* language, are reprinting with accuracy, and annotating with lucidity, long-forgotten or unknown Elizabethan writings. John Lyly's *Euphues* is one of these; and Mr. Edward Arber deserves our warm thanks for his admirable reprint of this rare old book,—once so popular, then so ridiculed, afterwards buried. Though by no means a “masterpiece” of that Golden Age of our native literature,—extending from the publication of Roger Ascham's *Scholemaster*, in 1570, to the failure of Ben Jonson's last play, *The New Inn*, in 1629—I shall prove in this Paper that *Euphues* is not merely a bibliographical rarity, but that it possesses both historic interest and intrinsic literary merit. And, lest some critics among my audience should reproach me with attempting to interest them in an effete literary affectation which had “deservedly” passed into oblivion, I ask their impartial consideration of some facts and inferences which, to my mind, render the whole subject of Euphuism worthy of careful study.

a. The book *Euphues*, like Sir Thomas More's *Utopia*, has added a word, “euphuism,” to the English language, the exact meaning of which is not understood by the

general reader, who is apt to confuse it with "euphemism."

b. *Euphues* and its imitations formed a distinctly new phase of our native literature,—a group of works which mark the *transition from verse to prose* of English romantic fiction.

c. Nay, more: for according to the high authority of our own Professor Raleigh, who has deemed *Euphues* worthy of an entire chapter in his admirable University Extension Manual, *The History of the English Novel*, that work is absolutely the *first original prose English* romance.

d. The immediate success of this book, at the time it issued from the press (1579 and 1580), can only be accounted for by the supposition that its novel style supplied to the reading public of that day *something lacking* in the pre-existent literature of the Renaissance in England.

e. The real merits of *Euphues* have been wholly obscured by the extreme contumely and ridicule thrown upon its obvious defects, and more especially upon the exaggerations of its imitators, who formed the euphuistic school of authors—Greene, Peele, Kyd, Lodge, Nash, Munday, Meres, and others. And further discredit has been cast upon it by the clumsy caricature of an euphuist, in the person of Sir Piercie Shafton, drawn by Sir Walter Scott in his novel, *The Monastery*.

f. A careful study of Shakspeare's earlier plays has convinced me that Lyly's works had more influence on that master-mind than any other *contemporary* books, and that a knowledge of the latter must enhance our enjoyment of the former. I can show that Shakspeare's earliest comedy, *Love's Labour Lost*, was written expressly to ridicule *spoken* euphuism, but that the "Swan of Avon" borrowed freely in other comedies from Lyly's plays.

g. Lastly, *Euphues* is a treasury to a philologist of interesting words, phrases, jests, proverbs, mediæval superstitions, etc.; and the book gives us many unstudied but graphic word-pictures of sixteenth-century fashions, manners, and customs.

JOHN LYLY, THE AUTHOR OF *Euphues*,

was a native of Kent, born in 1554, the year of birth both of Sir Philip Sidney and of Richard Hooker, "the judicious," on whose prose our own Ruskin modelled the style of his *Modern Painters*. The poet Spenser and the gallant, ill-fated Raleigh were then two years old. Men of ability, and not seldom of genius, in every line of thought and of action abounded in England at this period. Culture had revived. University education was more valued and more accessible than of old; and the production of literary work began to be recognised as a profession.

In an autobiographical passage in *Euphues* we learn that Lyly's parents were "honest and worshipful," although he was entered on the books of Magdalen College, Oxford, as *plebei filius*. Though he appears to have neglected his more serious studies for the lighter arts of poetry and music, he took his B.A., and afterwards his M.A. degrees (1575), after the usual *curriculum*. Coming to the Court of Queen Elizabeth, Lord Burleigh, then Lord High Chamberlain, gave the young M.A. a small salaried appointment in his household, which Lyly accepted gratefully, as a stepping-stone to some higher post. His literary talents were chiefly employed in writing plays, masques and "revells" for the enjoyment of the Queen, whom he flatters in every piece most obsequiously, as was the usual fashion then. As no portrait of John Lyly is extant, we cannot judge of his personality further than from the remarks of his friend Thomas Nash, which

imply that he was a little man who was married, of lively wit, yet of earnest and serious heart, who smoked tobacco,—then an exotic luxury—in excess. He must have married early in his career: his wife's family are unknown to us. He seems to have been happy in his family life, for he never joined in the wild Bohemianism of Greene, Marlowe, Nash, and other literary friends. To the initiated, Lyly's autograph signature, which is found in No. 36 of the Lansdowne MSS., reveals a character of amiability, refinement, poetical imagination, ambition, and not inconsiderable affectation. He gives us, in the words of *Fidus* in the second volume of *Euphues*, some glimpses of his life at court, where, in the words of Anthony a Wood, "he was reputed a rare poet, witty, comical, and facetious." Young Lyly describes his early ambition, his difficulties, and his disappointments in a long discourse, of which I quote a few sentences, sufficient for my purpose. "At the age of xx yeares there was no trade or kind of lyfe that fitted my humour . . . but the Court, thinking that place the onely meanes to clymbe high, and sit sure . . . I was there entertained as well by the great friendes my father made as by mine own forwardnesse. . . . I was not inferior in wit to manye . . . but I flattered myselfe, and in the ende deceived myselfe. . . . I endeavoured to court it with a grace . . . laying more on my backe than my friendes could well bare, having many times a brave cloke and a thread-bare purse." Still, he was duly attentive to the fair sex, for whom, indeed, he is thought to have written *Euphues*. "Who so conversant with Ladies as I, who so pleasant? Who so prodigall? Inasmuch as I thought the time lost which was not spent either in their company with delyght, or for their company in letters."

While occupied with literary and dramatic work,—

acting as his own stage-manager in the production of the Court Plays and Masques, and waiting for the post he coveted, that of "Master of the Revells to the Queen," Lyly conceived the idea of writing a fashionable novel, moral, patriotic, and yet lively and "witty" (in the Elizabethan sense), which might compete with, and even surpass in popularity those numerous translations and compilations of Italian, French, and Spanish romances which formed the "light reading" of the Court, the city, and the nobility. There were some fashionable ladies who, like Lady Jane Grey, carried their New Testaments, Prayer-book or Gospels hanging from their girdles; but there were many more who bore about with them Ariosto, Petrarcha, or Boccaccio. *The English novelist* had not yet arisen, and yet the taste for the old Arthurian, Charlemagnian, and Crusading tales had passed away. Lyly determined to impress the reading public by an original work on Love, Courtship, Marriage, Beauty, Wit, Learning and Religion, framed in the attractive mould of an Italianesque romance, so that it should be as acceptable to the devout ladies as to the frivolous damsels of town and country. He believed the ordinary prose of his day (as for example Ascham's *Scholemaster* and *Toxophilus*) to be heavy and bald. He therefore resolved to invent a brighter style, of pronounced vigour, yet harmonious and ornate, and so rhythmical as to express the author's ideas as aptly and elegantly as by means of poetry. He conceived that by a judicious use of antithesis and alliteration, and also by abundant similes and illustrations drawn from classical mythology, and from the real or legendary properties of animals, plants, and minerals, a didactic style (underneath which lay a high moral purpose) might be relieved of its heaviness. Such was the origin of the remarkable book *Euphues*, which I shall

examine later on in detail; and thus *Euphuism* took its rise, just as "Arcadianism" from the *Arcadia* of Sir Philip Sidney.

Although Lyly's Plays were much appreciated, and his *Euphues* (1579 and 1580) was an immediate success, we find his fond and not baseless hopes of succeeding to the "Mastership of the Revells" dashed to the ground by the appointment of Edmund Tylney thereto, in the year 1579. He lingered about the Court, however, for some years later, writing for a living—not as remunerative an employment, Greene tells us, as that of an actor or manager—and we gather from his two pitiful petitions to Queen Elizabeth, presented in 1590 and 1593, that his merits were ignored by that capricious monarch. In the former petition he says: "I was entertained by your own gracious favour . . . I dare not say with a promise, but with an hopefull Item to the revercion [of the Mastership] for which these x yeares I have attended with an unwearied patience. And nowe, if your Sacred Majestie thinke me unworthy, and that after x yeares tempest, I must at Court suffer shipwrack of my tyme, my wittes, and my hopes, vouchsafe in your never-erring judgment some Plank or Rafter to wafte me into a Country where in my sadd and settled devocion I may . . . write prayers instead of Plaies." But the cold-hearted Queen was deaf to his request; and we find him three years after, when at the age of 40, despairingly writing in his second petition: "Thirteen yeares your Highnes' servant, but yet nothing. Twenty friends that though they say they wilbe sure, I find them sure to be slowe. . . . My last Will is shorter than myne invencion: but three legacies, patience to my Creditors; Melancholie without measure to my friends; and beggarie without shame to my family."

Leaving the precincts of the Court, John Lyly went to

live somewhere in the Parish of St. Bartholomew, in the City of London, maintaining himself and his family by translating, and by the sale of his plays and of *Euphues*, eight editions of which book were published during the author's lifetime. He died at the age of 52 (just Shakspeare's age at death), and was buried in St. Bartholomew's churchyard on May 30th, 1606, a locality not many hundred yards from Bread Street, where John Milton was born two years later.

The literary remains of this author may be grouped conveniently thus:—I. Dramatic Works; II. Controversial and Miscellaneous; III. *Euphues*.

I.—LYLY'S DRAMATIC WORKS.

Those plays, masques and comedies which are undoubtedly authentic are eight in number, all written in prose, with numerous lyrics interspersed, except one, which is in blank verse,—*The Woman in the Moone*. The subjects of *Mydas*, *Gallathea*, *Sapho and Phao*, *Campaspe*, *Endimion*, and *Love's Metamorphosis* are classical; but *Mother Bombie* is a lively farce, like *Gammer Gurton's Needle*.

Amid all the usual anachronisms and breaches of "the unities of the drama," of that period, there is much sparkling dialogue, humour, repartee, political satire, and many sweet and quaintly original songs. The well-known "Song of Apelles," in the play of *Campaspe*, is that by which alone Lyly's name is made known to the average schoolboy, by the circumstance of its appearing in most school Poetry Readers. But many other songs are worthy of quotation as showing true poetic expression. Take, for example, the Choral Hymn to Apollo, in *Mydas*—

I.

Sing to Apollo, God of Day,
 Whose golden beams with morning play,
 And make her eyes so brightly shine
 Aurora's face is called divine.
 Sing to Phœbus, and that throne
 Of diamonds which he sits upon.
 Io! pœans let us sing
 To Physicke's and to Poesie's King.

II.

Crowne all his altars with bright fire,
 Laurels bind about his lyre.
 A Daphnean coronet for his head;
 The Muses dance about his bed
 When on his ravishing lute he playes,
 Strew his temple round with bayes.
 Io! pœans let us sing
 To the glittering Delian king.

The chief interest to modern readers of these old plays (lately reprinted very carefully by F. W. Fairholt) consists in the coincidences between several songs and blank-verse lines in Shakspeare and the earlier compositions of John Lyly.

Who cannot see the exact resemblance of the idea in the well-known canzonet in *Cymbeline*, the date of which play is 1605—

Hark, hark *the lark at heaven's gate sings*
 And Phœbus 'gins arise, &c.—

to the song in *Campaspe*, Act V, composed in 1584—

Brave prick-song! who is't now we heare?
 None but the larke, so shrill and cleare.
 Howe at Heaven's gate *she claps her wings*
 The morne not waking till she sings!

Compare also the Song of the Fairies in Lyly's

Endimion (1592) with that in the *Merry Wives of Windsor*, Act V, Sc. 4 (1601).

The ablest of Shaksperian commentators, Gervinus (with whom Professor Saintsbury agrees on this point) asserts that the witty word-play and repartee in all Shakspeare's Comedies, and in his *Henry IV*, are modelled on these plays of Lyly. Certain it is that they were all successful at the time, so much so that Gabriel Harvey, poet and pamphleteer, a bitter opponent of Lyly's, writes in his *Pierce's Supererogation* (1593), "You were best to please *Pap-Hatchet*, and see *Euphuus* betimes, for fear lest he be mooved, or one of his apes hired, to make a Playe of you ; and then is your credit quite undone for ever ; such is the publique reputation of their Playes."

II.—LYLY'S CONTROVERSIAL AND MISCELLANEOUS WORKS.

Of Lyly's translations we have nothing extant, and of his Prefatory Letter to his friend Thomas Watson's *Hecatompethia, or Passionate Centurie of Love*,—a collection of love-sonnets,—nothing need be said. But his contribution to the "Martin Mar-Prelate" controversy is too remarkable to be passed over without some examination, for it shows both Lyly's versatility and his attachment to the Church of England as allied to the State. Queen Elizabeth, as Head of the Reformed Church, not only exercised her prerogative of personally selecting the archbishops, bishops, deans, and other dignitaries, but "tuned the pulpits," as she said, by casting out those clergymen whose teaching was either Romanist or Puritan in its character. The Puritans took their origin in her days, and neither the Act of Uniformity of 1559, nor the specially stringent Act of Conformity (to the Episcopal Church) of 1593, could quench this form of Dissent, which Elizabeth hated more than Romanism, and which she

punished as treason against the Crown. In 1588 there appeared a pamphlet, which had been secretly printed and circulated, by a pseudonymous author, who called himself "Martin Mar-Prelate, Senior," entitled, *An Epistle to the Terrible Priests of the Confocation House*. Its language was vituperative, bitter, and audacious in the extreme, attacking bishops, deans, and other dignitaries of the Episcopal Church by name, accusing them of various malfeasances and abuses of power, dubbing them "pettie Popes," "pettie Antichristes," "presumptuous, profane, paultrie, pestilent, and pernicious prelates," and bringing a definite charge against Aylmer, Bishop of London, of theft. *Inter alia*, this tract asserted that Episcopacy was unscriptural, but the argument was obscured by needlessly abusive language and coarse personalities. Other pamphlets followed, by "Martin Senior," and "Martin Junior." The defenders of the Church, Thomas Dekker, Gabriel Harvey, and others, replied vigorously, and the paper war went on until 1593, when John Penry, or Ap Henry, a Welsh Puritan, who was himself "Martin Mar-Prelate," was at last caught and executed, along with Barrow and Greene. In 1589 an "Anti-Martinist" tract, anonymous, came out, attracting much attention from its very quaint and original title, which ran thus:—" *Pappe with a Hatchet*, alias, a Figge for my Godsonne, or Cracke me this Nut; or, A Countrie Cuffe, that is, a Sound Boxe of the eare for the Idiot Martin to hold his peace, seeing the Patch will take no warning. Written by one that dares call a dog a dog, and made to prevent Martin's dog-daies. Imprinted by John Anoke and John Astile . . . and sold at the signe of the Crab-Tree Cudgell in Thwack-Coat Lane."

Several critics have denied that this was by Lyly, so coarse, though witty and clever, is the style of its contents.

But I have satisfied myself, after careful study, that it is by Lyly, from both extrinsic and intrinsic evidence. 1st. Gabriel Harvey openly named Lyly as its author, and neither Lyly nor his friend Nash denied it. 2nd. Two striking phrases in the title are found in Lyly's Plays, namely *Pappe with a Hatchet* in Act I, Sc. 3, of *Mother Bombie*; and *calling a dog a dog*, in *Mydas*, Act IV, Sc. 3. 3rd. Two phrases and illustrations used in *Euphues* occur here, namely, the Bed of Procrustes, and the expression, "take pepper in the nose," that is, take offence at what has been written. The Martinists are here accused of "measuring conscience by their own yard . . . like the theeves, [Scyrum and Procrustes,] that had an yron bed, in which all that were too long they would cut even, and all that were too short they would stretch out, and none escaped unracked or unsawed that were not just of their bed's length, so all that are not Martins, that is, of their peevish mind, must be measured by them. If he come short of their religion, why he is but a colde Protestant, he must be pluckt out to the length of a Puritane. If any be more devout than they are, as, to give alms, fast, and pray, then they cut him off close by the workes, and say, 'he is a Papist.'" 4th. In his Preface to the tract, Lyly expressly apologises for the coarseness of his style, *as compared with his other writings*, by the assertion that he "borrows Martin's language," in the following words: "I seldome use to write, and yet never writ anie thing that in speech might seem indecent, or in sense unhonest: if here I have used bad tearmes, it is because they are not to bee answered with good tearmes: for whatsoever shall seem lavish in this Pamphlet, let it be thought borrowed of Martin's language." There are other indications of Lyly's authorship which I have not space to point out. His apology, quoted above, addressed *To the Indifferent*

Reader, would apply to the following passages, which give the characteristic tone of *Pappe with a Hatchet*: "Have at you all, my Gaffers of the rayling religion, 'tis I must take you a peg lower. . . . I professe rayling, and think it as good a Cudgell for a Martin as a stone for a dogge, or a whip for an Ape, or poyson for a rat. . . . Who would currie an Asse with an ivorie Combe? Give the beast thistles for provender." Again,—“Scratch thy head, Martin, for be thou Martin the bird, or Martin the beast,—a bird with the longest beak, or a beast with the longest eares,—there's a net spread for thy necke. . . .” “. . . Thou seest, Martin, with a little helpe, to the foure and twentie orders of knaves thou maist solder the foure and twentie orders of fooles: and so, because thou saist thou art unmarried, thou maist commit matrimonie,—from the heires of whose union we will say,—‘Good Lord, deliver us.’” As a parting shot, the author defies Martin to sue him for libel—“If thou sue me for a double maime, I care not, though the Jurie allow thee treble damages: it cannot amount to much, because thy conscience is without wit, and thy wit without conscience, and therefore both not worth a penie.”

Pappe with a Hatchet is of some historic interest, but does not add to its author's reputation—except, perhaps, for versatility. In comparison with Lyly's Plays, and with his *Euphues*, it is an unworthy production; and one can agree with Harvey's exclamation—“Surely *Euphues* was someway a prettie fellow:—would God Lilly had always been *Euphues*, and never *Pap-Hatchet*.”

III.—EUPHUES.

In the annals of Elizabethan literature, the spring of the year 1579 was memorable for the appearance of *Euphues: the Anatomy of Wit*, &c., by a young author not

yet known except as a playwright; and by an exquisite poem, *The Shepheard's Calendar*, by a still less known writer, Edmund Spenser. The former work constituted the pioneer of English fiction: the latter the origin of English lyric poetry. But, while the very name of the author of *Euphues* has dropped into oblivion, the name of Spenser is still famous, and will last as long as our language endures.

The book—“*Euphues: the Anatomy of Wit*. Verie pleasant for all Gentlemen to reade, and most necessary to remember. Wherein are contained the Delyghts that Wit followeth in his Youth by the pleasantnesse of Love, and the happinesse he reacheth in Age by the perfectnesse of Wisdome”—for so runs the full title—was, our author quaintly says, “hatched in the hard winter with the Halcyon” (i.e., in 1578), and was so framed as to form an incomplete story. For if this volume proved successful, Lyly had designed to publish a sequel, or second part, *Euphues: his England*, which should equal or even surpass in interest the first volume. I will analyse the two parts of *Euphues* in consecutive order, giving as many quotations as space permits, so as to let the book speak for itself.

A. “*Euphues: the Anatomy of Wit*.”

The Greek word *Euphues* (εὐφύης), which is the name of the hero of this “novel,” as Professor Raleigh would have us regard the book, means in English, “well-born,” “well-brought-up,” or “handsome;” and, in a secondary sense, “clever,” “witty,” or “ingenious.” All these epithets are applicable to Lyly’s hero, Euphues, a noble youth of Athens, who, after coming into his patrimony by the death of his father, goes forth into the world to enjoy it, and the city he selects is Naples, where the scene of the

whole of this volume's adventures is laid. The sub-title, *Anatomy* (or *Anatomie*) of *Wit*, means the explanation, analysis, and illustration of that word "wit," which in the sixteenth century connoted and comprehended much more intellectual vivacity than its present-day meaning includes. The Puritan writer, Stubbs, in his *Anatomie of Abuses in England* (1583); Thomas Nash in his *Anatomie of Absurditie* (1589); and Robert Burton, in the better-known *Anatomie of Melancholie* (1621), found the word "anatomie" the most convenient for their purpose. In the play of *As You Like It*, we have two illustrations thereof:

Should I anatomize him to thee as he is, I must blush.

(Act I, Sc. 1).

and,

The wise man's folly is anatomized

E'en by the squandering glances of the fool.

(Act II, Sc. 7).

The casual reader finds *Euphues* more like a didactic and discursive miscellany comprising prefaces, dialogues, monologues, long letters, tales of love, classical anecdotes and lectures on education and religion, arranged in fifteen sections, without chapters or chapter-headings, but strung, as it were, upon a thin line of story—the adventures in Italy of *Euphues* and his friend *Philautus*.

In its *minimum* of plot or adventure, and its *maximum* of moralizing, *Euphues* may be compared to those not very exciting novels, Fénelon's *Télémaque* (1698); Johnson's *Rasselas* (1759); and Dr. John Moore's *Zeluco* (1786).

Naples, where the noble traveller *Euphues* lands a stranger, but one with a well-filled purse, is *euphuistically* described as "a place of more pleasure than profit, and yet of more profit than pietie, the very walls and windows whereof shewed it rather to be the Tabernacle of Venus

than the Temple of Vesta." Soon after his arrival our hero meets a good old man, significantly named *Eubulus* (εὐβουλος), who gives him earnest and fatherly counsel against the moral dangers of the place, and the horde of human parasites who preyed upon every wealthy stranger. But the self-sufficient young Athenian rejects his advice, and plunges into the dissipations of the gay city. After two months he chooses as his intimate friend a certain *Philautus*, a typical Neapolitan, and by him is introduced to the beautiful lady *Lucilla*, daughter of *Don Ferardo*, one of the city magnates. In this strange "novel" we have no personal description of any of the characters, except of one, the lady *Camilla*, in the second part: but we are led to infer that all the men are handsome and cultured, and all the ladies fair and witty. Whatever their nationality, moreover, all the personages talk in the sententious, prosy and pedantic style which was deemed elegant and classically correct in Lyly's time. But every sentence has a certain "point" in it, and occasionally the alliteration and antithesis used are even epigrammatic. *Lucilla* is depicted as a fickle young lady, who forsakes her lover, *Philautus*, for the superior attractions of his friend *Euphues* (treacherous in this instance, but never afterwards), and finally throws over *Euphues* for *Curio*, whom she marries after her father, *Don Ferardo*, has died from chagrin. In a long soliloquy after *Lucilla's* rejection of him, *Euphues* by turns upbraids the fair sex for its fickleness, and himself for not acting on *Eubulus'* kind and wise advice. "I had thought," says he, "that woemen had been as we men, that is, true, faithfull, zealous, constant, but I perceive that they be rather woe unto men, by their falsehoode, gelousie, inconstancye. . . . The Phisition sayth it is daungerous to minister Phisicke unto the pacient that hath a colde stomacke and a hotte lyver,

lest in giving warmth to the one, he inflame the other : so, verily it is hard to deale with a woman whose wordes seeme fervent, whose heart is congealed into hard yce, lest, trusting their outward talke, he be betrayed with their inward trechery." Becoming almost dramatic and even poetic, he exclaims : "I will to Athens, there to toss my bookes, no more in Naples to live with faire looks ! . . . O the hidden secrets of Nature, the expresse Image of morall virtues, the equall balance of Justice, the medicines to heale all diseases, how they begin to delight me ! . . . I see mine own impietie, I will endeavour . . . to amende all that is past, and to be a myrrour of Godlinesse hereafter."

And, accordingly, from this time forth, our hero is a pattern of virtue, and fulfils the part of mentor to *Philautus*, with whom he renews the friendship broken by the fickle conduct of *Lucilla*.

From his study in Athens, *Euphues* sends a quaint (and, to us, rather amusing) misogynistic *Cooling Carde for Philautus and all fond Lovers*. "Carde" in those days meant a medical prescription. "Come to me, all ye lovers that have been deceived by fancy, the glasse of pestilence, or deluded by woemen, the gate to perdition ; be as earnest to seeke a medicine as you were eager to runne into a mischief. . . . This is therefore to admonish all young Impes and novises in love, not to blow the coales of fancy with desire, but to quench them with disdayne. . . . Eschewe Idlenesse, my *Philautus*, so shalt thou easily unbend the bow and quench the brandes of *Cupide*. Love gives place to labour : labour, and thou shalt never love."

Like the Puritan writers Ascham, Stubbes and Howell, Lyly, in several passages, pours out sarcasm upon the exotic fashions and unnatural artifices of the *grandes*

dames of that period, when not only were such dainty, new-fangled articles as fans, brooches, ostrich-feathers, silk stockings, and pocket-handkerchiefs coming into use, but the Court ladies were in the habit of dyeing their hair auburn—yellow, in imitation of the locks of the Virgin Queen. “It is a world to see how commonly we are blinded with the collusions of woemen! . . . Take from them their perywigges, their paintings, their Jewells, their rowles, their bolsterings, and thou shalt perceive that a woeman is the least part of hir selfe. . . . Look in their closettes, and thou shalt finde an Appoticye’s shop of sweete confections; a Surgion’s boxe of sundry salves; a Pedlar’s packe of new fangles.” He concludes with a sort of apology to the virtuous and unsophisticated women—“And yet, *Philautus*, I would not that all woemen should take pepper in the nose in that I have disclosed the legerdemaines of a fewe, for well I knowe none will wince, except she bee gawlded, neither any be offended, unlesse she bee guiltie.”

After blowing off the steam of his indignation against faithless women of fashion, the accomplished and scholarly Euphues is next made by his creator to indite a solid and serious Treatise on Education, entitled *Euphues and his Ephæbus*. Although much of this is translated from Plutarch, John Lyly has given us a good deal of original thought, and his ideal of a complete University education is worth quoting, as showing the differences between the *curricula* of the sixteenth and the nineteenth centuries. “The fayrest nosegay is made of many flowers, the finest picture of sundry colours, the wholesomest medicine of divers hearbes, wherefore it behoveth youth with all industry to search [out] not onely the hard questions of the *Philosophers*, but also the fine cases of the *Lawyers*: not onely the quirks and quiddities of the *Logicians*, but

also, to have a sight into the numbers of the *Arithmeticians*; the Tryangles and Circles of the *Geometricians*; the Spheere and globe of the *Astrologians*; the notes and crochets of the *Musitians*; the odd conceits of the *Poets*; the simples of the *Phisitions*; and in all things, to the ende that, when they shall wish to talke of any of them, they may be ignorant in nothing." The leading Universities of that day, we are informed, were Padua, Paris, Wittenberge, Athens, Oxford, and Cambridge. Into all of these corruptions and debasing laxity of life had crept, which our author denounces unsparingly.

The next section in the book, a dialogue between *Euphues* and *Atheos*, consists of a well-sustained argument on the part of a Christian to prove the existence of God and the truth of the leading tenets of the Christian religion to an Atheist. I think this section could only have been written by a really pious believer, and such Lyly must have been. All the objections of the Atheist having been successfully met and refuted, chiefly by Scripture texts from *The Bishop's Bible* of 1568,—the version used by Shakspeare, Beaumont, and Fletcher—*Atheos* in the end confesses his belief in the God of the Bible, and in the Saviour's Atonement.

Lastly, we find several letters written to friends in Italy, all full of wise counsel, sympathetic advice, and Scriptural passages. To *Philautus* he writes twice, the first letter to exhort him to righteousness and purity of life, the second to moralise upon the career of *Lucilla*, who had lately died. He writes to his old friend, *Eubulus*, apologising gracefully for having ignored his advice in the past, and sympathising with him for the loss of his daughter. Excellent letters follow this, addressed to *Botonio*, to *Alcius*, and to *Livia*, which need not be particularly noticed.

It was this part of *Euphues* that specially attracted the hearty commendation of Charles Kingsley, when, in his *Westward Ho!* he defended the founder of Euphuism against the caricature given to the world by Sir Walter Scott in the character of the coxcomb, Sir Piercie Shafton, in his novel *The Monastery*. Canon Kingsley writes in his "Brotherhood of the Rose" chapter—"If this chapter shall seem to any Quixotic and fantastical, . . . if they shall quote against me, with a sneer, Lyly's *Euphues* itself, I shall only answer by asking 'Have they ever read it?' For, if they have done so, I pity them if they have not found it, in spite of occasional tediousness and pedantry, as brave, righteous and pious a book as a man need look into, and wish for no better proof of the nobleness and virtue of the Elizabethan age than the fact that *Euphues* and the *Arcadia* were the two popular romances of the day. . . . In the meanwhile, let those who have not read *Euphues* believe that if they could train a son after the pattern of his *Ephæbus*, to the great saving of their own money and his virtue, all fathers, even in these money-making days, would rise up and call them blessed." This is no mean praise from no mean judge of books. *Euphues: the Anatomy of Wit* completely and quickly won the favour of the reading public of 1579; so much so that a second edition was called for and sold up within the year of publication. The ladies did not seem to mind their scoldings in *Euphues*; for doubtless they were mollified by such complimentary remarks by the author as "*Euphues* had rather lye shut in a Ladye's casket than open in a Scholler's studie."

B. "*Euphues and His England*,

Containing his Voyage and Adventures, mixed with sundry pretie discourses of honest Love, the discription of the

Country, the Court, and the manners of that Isle. Delightful to be read and nothing hurtful to be regarded: wherein there is small Offence by Lightnesse given to the Wise, and less Occasion of Looseness proffered to the Wanton"—for so the quaint and voluminous title runs—followed quickly (in 1580) the first part. Its contents are more varied, and the "story" more full of characters than the first volume. *Euphues* and *Philautus* set sail for England, arriving at Dover after a two months' voyage, the tedium of which the former tries to mitigate by the long story of Callimachus, the venturous explorer, and Cassander, his uncle, a hermit; and by various exhortations to *Philautus* how to behave himself when in this foreign country, and how to avoid falling in love with the Englishwomen. It is significant of the state of our native land at that time, agitated as it was by Jesuit plots and crafty diplomats, that *Philautus* is thus advised:—"At thy coming into England be not too inquisitive of newes, neither curious in matters of State; in assemblies aske no questions. . . . It is the nature of that country to sift strangers. . . . They thinke *Italians* wanton and *Grecians* subtill; they will trust neither, they are so incredulous; but undermine both, they are so wise. Be not quarrellous for every lyght occasion; they are impatient in their anger of any equal, readie to revenge an injury, but never wont to proffer any. They never fight without provocation, and, once provoked, they never cease."

An old courtier, named *Fidus*, who kept bees, lodged the two travellers hospitably at Canterbury, and regaled them with the long and sad story of his love for the lady Iffyda, who, cherishing the memory of her dead lover Thirsus, would never listen to *Fidus*' passionate pleadings. His experience of love he thus sums up:—"You see,

Gentlemen, what Love is, begun with griefe, continued with sorrowe, ended with death. A paine full of pleasure, a joye replenished with misery, a Heaven, a Hell, a God, a Divell," &c. But all this does not prevent the always amatory *Philautus* from becoming desperately enamoured of the noble lady *Camilla*, when the friends enter "society" in London. She is described as a lovely maiden of eighteen; of middle height and sanguine complexion; with "bright hasill eyes, and black, yet comely hair; in condition a right Sainte, not given to play, but often to prayer." *Philautus* is not successful in his love-suit, for *Camilla* favours *Surius*, a noble knight who is slow in declaring his love to her. In his despair *Philautus* resorts to *Pællus*, an Italian magician, living in London, for a love-potion. This man honestly assures him that love philtres are all useless, for "Love dwelleth in the minde, in the Will, and in the Hearte, which neither Conjuror nor Phisicke can alter. For as credible is it that Cupide shooteth his Arrowe and hytteth the hearte as that hearbes have the force to bewitch the hearte; onely this difference there is, that the one was a fiction of poetrie, the other of superstition." A pathetic love-letter, conveyed ingeniously inside a hollowed-out pomegranate to his lady-love, fails to move her, being replied to by a caustic epistle stitched by *Camilla* inside her pocket *Petracke* (*Petrarcha*), from the pages of which, at his next call, she requests him to "conster [construe] a lesson." At length *Philautus* gives up the chase, and is consoled by the love of *Mistress Frauncis*, niece of the *Lady Flavia*. A Lenten supper-party, given by *Lady Flavia*, affords us a vivid picture of how our ancestors spent the long March evenings. In Lent all games were *tabooed*, except the dialectic one. The question is introduced by *Martius*, the senior guest present, whether young ladies and young

gentlemen should freely meet each other, without chap-erons, and the arguments for and against are gravely set forth with Euphuistic prolixity. There is some witty repartee at the end of this discussion, between *Lady Flavia* and *Surius*, the now accepted and happy lover of *Camilla*, which want of space prevents me from quoting. *Euphuus* leaves *Philautus* in England, about to be married to his *Violet*, that is, *Mistress Frauncis*, giving him the following shrewd advice at parting:—"Be not too imperious over hir, that will make hir to hate thee, nor too submissive, that will cause hir to disdaine thee; let hir neither be thy slave nor thy sovereign; for if she lye under thy foote she will never love thee, if she clyme above thy head she will never care for thee. . . . In governing thy householde, use thine owne eye and hir hande, for huswifery consisteth as much in seeing things, as *fetling* things—(here we have our common Lancashire word, "*fettling*")—let all the keyes hang at hir girdle, but the purse at thine; so shalt thou knowe what thou dost spend, and how she can spare."

From Athens *Euphuus* writes various letters to friends, and a very singular historical and topographical essay entitled *A Glasse for Europe*, composed evidently for the express purpose of glorifying the Queen, the country, its resources, navy, civilisation, domestic and foreign policy, and its tranquility, compared to the turbulent state of the Continent. This portion of *Euphuus* is the most interesting of any, to my mind, because, like *Pepys' Diary*, it is a veracious sketch of our native land by an honest and truthful contemporary writer. We should not condemn his exaggerative praise of Elizabeth, to whom no flattery, however excessive, came amiss, for poor John Lyly still had hopes of some favour from her. "What greater mervaile," he exclaims, "hath happened since the begin-

ning of the worlde than for a young and tender maiden to govern strong and valiant menne,—more to be wondered at than the regiment [rule] of *Deborah*, who ruled twentie yeares with religion, or *Semyramis*, that governed long with power, or *Zenobia*, that reigned six yeares in prosperitie. . . . O blessed peace, which the Lorde hath continued with great and unspeakable goodnesse among his chosen people of England! O happy Prince! O fortunate people!”

The book ends with this Epilogue:—“Gentlemen, *Euphues* is musing at the bottom of the Mountaine *Silirsedra*: *Philautus* is married in the Isle of England: two friendes parted, the one living in the delightes of his newe wife, the other in contemplation of his olde griefes.”

The two great literary faults of *Euphues* are the foible of classical allusion and the propensity to illustrate every mental trait by some real or fabulous property of an animal, plant, or mineral. As, for example, when *Euphues* and *Philautus* quarrel over *Lucilla*, *Philautus* moralises thus:—“I see now, that as the fish *Scolopidus* in the river *Araris*, at the waxing of the moone, is as white as the driven snow, and at the wayning as black as the burnt coale, so *Euphues*, which at the first of our friendship was very zealous, is now at the last become most faithlesse.”

“O my *Lucilla*,” exclaims *Euphues*, when courting that fickle maid, “if thy heart be made of that stone which may be mollified onely with bloud, would that I had sipped of that river in *Caria* which turneth those that drinketh of it to stone.”

I must pass over the old English proverbs which abound in this book, such as “It is a blynde Goose that cometh to the Foxe’s sermon;” “Faint heart never won

Castell nor Ladye ;” “ After three days fishes and guests are stale,” &c., &c. Nor can I particularise the interesting and now obsolete words enbalméd in these pages, except that I may mention *Mammering*, meaning “stammering,” used once only by Shakspeare in *Othello*, Act III, Sc. 3; and *pheere*, “companion,” derived from the Anglo-Saxon verb “*faran*,” to travel, which is also found once in Shakspeare, *Pericles*, Act I. Lyly enriched the literary resources of the English language by introducing Greek words, such as *sympathy*, *type*, *diapason*, and Romance words, as *relish*, *byas*, *mockerie*, *liniaments*, *incomparable* ; by coining Anglo-Saxon words, as *finenes*, *chilnesse*, *fore-leg*, *pot-hearbe*, &c.; and by using old words in a new sense, as *a slippery pranke*, *a broad jest*, *adle-braines*, and so on.

The ridicule poured out upon the weaknesses of Lyly's style, even while *Euphues* was a very popular book, was deserved less by the author than by his imitators, who *out-euphuized* the original euphuist. Lyly intended his original prose style to be used in *writing alone*, *not in conversation*, least of all in pulpit utterances. Yet such was the craze for Euphuism that Anthony à Wood records Mr. Tavernour, preaching at St. Mary's Church a sermon before the heads of Oxford University, as uttering such nonsense as this:—“Arriving at the Mount of St. Mary's, in the stony stage where I now stand, I have brought you some fine biscuits baked in the oven of charity, carefully conserved for the chickens of the Church, the sparrows of the Spirit, and the sweet swallows of salvation !”

For about twenty years after the publication of *Euphues*, imitations and continuations of the book were written by Greene, Lodge, Munday, Meres, and others. Lodge's really fine pastoral idyll of *Rosalynde: Euphues'*

Golden Legacie, has been immortalised by Shakspeare's adaptation in *As you Like It*.

Euphuism in fashionable circles gave way to Arcadianism, and that, in its turn, was displaced by the French of the Court of Charles I and his consort.

The Euphuism of Shakspeare's Plays.

When young William Shakspeare came up to London in 1586 or 1587 to seek his fortune, he found Euphuism in the full tide of fashion. From his study of Lyly's then extant works he extracted both golden ideas and drossy phrases. In the jargon of Osric, the page in *Hamlet*, in *Henry IV*, in *Richard II*, in *Twelfth Night*, we have Euphuistic "wit" and repartee, often in caricature, sometimes in sincere imitation. But there is one play, the early comedy of *Love's Labour Lost*, which was expressly composed to throw into high relief the absurd affectations of those who out-euphuized Lyly. In *Don Adriano de Armado*, "a man of fire, new words, fashion's own knight," we see what the lisping, mincing courtier may have descended to in the art of euphuizing our spoken English. In *Holofernes* again, supposed to be a personal caricature of a Don Florio of London, dull pedantry finds its incarnation and consummation. When the two characters are brought together, accompanied by their adoring friend *Sir Nathaniel*, and smartly criticised by the pert and witty page *Moth*, the effect is exquisitely humorous. There is not a better sustained comedy in all the Plays.

Ben Jonson satirised euphuism in his *Cynthia's Revels*, but gave Lyly an honourable place in his prefatory verses written for the 1623 folio edition of Shakspeare. Michael Drayton was particularly severe upon Lyly, thanking Sidney for putting him out of fashion. On the other side, William Webbe and Edward Blount, who edited and pub-

lished Lyly's Plays in 1632, gave him almost inordinate laudation. Certain it is that *Euphues* was in demand until 1636, when its *tenth* edition was issued. Lyly was a *homo unius libri*, and that book was not only good in its aim, and very successful in its day, but may even now, after three hundred years, be read with interest and enjoyment by one who, like myself, venerates the past, and wishes to trace out the origin of literary forms.

The length of the sentences and the monotony of the cadences of *Euphues* render it unsuitable for reading aloud—one of my favourite tests of a *really worthy book*. But nevertheless it is a book of solid merit. It is no small credit to a young college graduate, dependent mainly upon his pen for his living, to have written a book which in those restless days, when travelled Englishmen and resident foreigners were importing new vices and effeminate fashions into Britain, extolled the virtues of simple home-life; a book which inculcated true patriotism, while unsparingly lashing the faults, follies, and foibles of the author's fellow-citizens; lastly, a book which, in that age of coarse conversation and indecorous jests,—the word “jesting” connotes this both in *Euphues* and in the Bible,—was pure and refined in every line, and is as suitable for ladies' perusal now as it was then. “For this I have diligently observed,” says the author, “that there shall be nothing found that may offend the chaste minde, with unseemely tearmes, or uncleantly talke!” We must except from this praise his *Pappe with the Hatchet*, which is decidedly coarse, for reasons given by himself. Still, good old John Lyly deserves our respect; and he is in dead earnest when, at the end of his *Glasse for Europe*, he exhorts the ladies of England thus: “Learne, Ladies, though late, yet at length, that the chiefest title of honour in earth is to give all honour to Him that is in Heaven;

that the greatest braverie in this worlde is to be burning lampes in the worlde to come; that the clearest beautie in this life is to be aimiable to Him that shall give life eternall."

I had much more prepared on the subject of my Paper, but the limitations of this volume exclude the remaining topics.

THE INFLUENCES OF EUPHUISM ON ENGLISH LITERATURE.

As regards the influence of Euphuism on English literature in general, I am of opinion, with Masson, that reminiscences of its best features have given a certain euphony to all subsequent prose, and that they have endued it with both ornament and precision of expression. Writers of the seventeenth and eighteenth centuries, who never even heard of John Lyly, have inherited certain beneficial effects of his style. In the stately and balanced sentences of Dr. Johnson, the literary dictator of his age, as well as in the writings of Addison and Steele, one can trace the influence of *Euphues*. In our own Victorian era, this old, forgotten book has had its share in suggesting the brilliant antitheses of Macaulay, Motley, and Froude, the three most fascinating historians of the nineteenth century.

ROBERT BROWNING AND HIS WORK.

By REV. EDWARD N. HOARE, M.A.

(This Paper has been condensed, and many illustrative quotations are omitted.)

ROBERT BROWNING was born in Camberwell, in May, 1812. His father, an employée of the Bank of England, was a man of great ability and of varied knowledge. He had a rare facility for rhyming; and by means of doggerel verses he taught many things to his son, including, we are told, the Latin declensions. He had accumulated a large library, amid the treasures of which the boy early learned to browse. It was characteristic of the poet that was to be that Quarles' *Emblems*, with its quaint illustrations, was one of the volumes that most fascinated his youthful imagination.

That imagination soon asserted itself, and at the age of twelve Master Robert had compiled a volume of verse which he modestly entitled *Incondita*. It was never printed, and in later years the author destroyed it, as he did every other early production that he could lay his hands on. Apparently, however, he might have said of himself, as Pope did—

As yet a child and all unknown to fame,
I lisped in numbers for the numbers came.

Browning was educated locally, and subsequently attended lectures for a term or two at University College. For the rest, his father taught him and he taught himself. Presumably he had no fault to find with this method, for he adopted the like system with his own son in after

years. But though *Incondita* was not published, young Browning had gone into regular training for the business of poesy; an element in this training, and surely a very invigorating one, was a systematic study of Dr. Johnson's *Dictionary*. The author's first published work was *Pauline*. One critic at least saw its merits, and had the courage to say so. Mr. Fox, the Unitarian clergyman, wrote of it—"This poem, though evidently a hasty and imperfect sketch (the author was only twenty-one), has truth and life in it, which gave us a thrill and laid hold of us with a power, the sensation of which has never yet failed us as a test of genius." To this period also belong *Porphyria's Lover* and *Johannes Agricola in Meditation*: also the lovely verses, which now form part of *James Lee*, commencing, "Still ailing, wind?" These Mr. Gosse thinks even more indicative of genius than *Paracelsus*, which appeared in 1835. Though this work, like its predecessor, fell flat on an unprepared and unappreciative public, there were not wanting those who recognised its power. Among these was Macready, the great actor. With what pleasure do we read the entry in his diary—"Read *Paracelsus*, a work of great daring, starred with poetry of thought, feeling, and diction, but occasionally obscure; the writer can scarcely fail to be a leading spirit in his time."

The great actor and the young poet soon became acquainted, and it was for Macready that Browning wrote his historical play, *Strafford*, which was produced at Covent Garden, the leading female part being sustained by Helen Faucit. It is interesting to read her description of the author, as he presented himself to her in his early manhood:—"He was then slim and dark, and very handsome, and, may I hint it, just a trifle of a dandy, addicted to lemon-coloured kid gloves and such things; quite the

‘glass of fashion and the mould of form;’ but full of ambition, eager for success, eager for fame, and, what’s more, determined to conquer fame and to achieve success.”

But if our poet was at this time determined to conquer fame and achieve success, he was none the less resolved not to stoop from his own ideal or to barter his integrity for the pottage of popularity. To this period, indeed, belongs what is probably (thanks to the institution of “Penny Readings”) the best known of the shorter poems, *How they brought the Good News from Ghent to Aix*. This was written when passing through the Straits of Gibraltar, and after he had been many days a victim to the horrors of sea-sickness. In 1840 *Sordello* appeared. Its reception was chilling, and, for a weaker man (may I say, too, a poorer man), it might have been killing. “I wrote it,” says the author in 1863, “twenty-five years ago only for a few, counting even in these for somewhat more care for its subject than they really had. My faults of expression were many; but with care for a man or book such would be surmounted, and without it what avails the faultlessness of either?” The man who treats his public thus must be prepared to wait long for his fame: Browning made his choice—and waited.

But waiting, in this prosaic world, means money, or the loss of it. Hitherto, Mr. Browning, Sen., who had never been unappreciative of his son’s talents, had patiently borne the loss entailed by the publication of the works already enumerated. But such a state of things was unendurable for a man of spirit; and the young poet was sorely troubled by it, till a fortunate opening presented itself by which, through the kindness of Mr. Moxon, he was enabled to produce a large quantity of his best work in a cheap serial form. It was thus that,

between 1841 and 1846, a number of the poems appeared under the fanciful title of *Bells and Pomegranates*; the series commencing with the charming drama, "Pippa Passes," and including such well-known poems as "In a Gondola," "Waring," "The Blot on the 'Scutcheon," "The Italian in England," "Saul," "The Lost Leader," "The Flight of the Duchess," "The Pied Piper," &c.

In 1843 *The Blot on the 'Scutcheon* was placed on the stage, but the collapse of Macready's pecuniary fortunes involved its premature withdrawal.

We now come to what may be considered the second division of Robert Browning's life. By this time he was thirty-four years of age, and although he had written some of the most impassioned love poetry in the language, we are asked to believe that it was evolved out of the depths of his consciousness rather than of his experience. His biographer states that hitherto he had been singularly heart-whole, though, from the first, he had counted several women as among his dearest friends. The story of his courtship of Elizabeth Barrett is well known, and it is certainly a very charming tale. It was with difficulty that, through the pleading of her cousin, John Kenyon, Browning obtained an introduction to the invalid poetess, whom few had seen, but of whom many talked. The woman herself long shrank from a meeting with her unseen admirer. "There is nothing to see in me, nothing to hear in me. I am a weed, fit for the ground and darkness." So she wrote to him; but he was not to be denied. The end of it was a clandestine marriage in September, 1846; clandestine, because Mr. Barrett had made up his mind that his daughter's bodily state (she had for years lain on a sofa) debarred her from marriage, and demanded the concentration of her affections on another world. But Robert Browning and Elizabeth Barrett, being both of

mature age (she was several years older than him), took their destiny into their own hands. Nor had either cause to regret the step. They lived for years in Italy, and, amid new surroundings, Mrs. Browning in great measure recovered her health, and in due time bore a son, who still survives. She herself died in 1861.

It was, indeed, a happy union, though it could not have been without its trials. But there was love, sympathy, and something more than appreciation on both sides. "If he is vain of anything," writes the wife not long after her marriage, "it is about my improved health, and I say to him, 'But you needn't talk so much to people of how your wife walked here with you and there with you, as if a wife with a pair of feet was a miracle of nature.'"

Browning always insisted in rating the poetic faculty of his wife higher than his own, an opinion which the public once shared, but which is not likely to endure the test of time. But his faith in her was very beautiful. "She has genius," he writes; "I am only a painstaking fellow. Can't you imagine a clever sort of angel, who plots and plans, and tries to build up something—he wants to make you see it as he sees it; shows you one point of view, carries you off to another, hammering into your head the thing he wants you to understand; and whilst this bother is going on God Almighty turns you off a little star—that's the difference between us. The true creative power is hers, not mine."

So he writes in "By the Fireside":—

Think, when our one soul understands

The great Word which maketh all things new—

When earth breaks up and Heaven expands,

How will the change strike me and you

In the House not made with hands

Oh, I must feel your brain prompt mine,
Your heart anticipate my heart;
You must be just before, in fine,
See, and make me see, for your part,
New depths of the Divine!

During the first year of his married life Browning published nothing, but the works on which his fame will in great part rest were being realised in the depths of his imaginative soul. In 1850 the silence was broken by the appearance of *Christmas Eve and Easter Day*. Of this work I do not know how to speak. To attempt any analysis of its subtle argument, or to give any adequate idea of the poetic beauties with which that argument is interwrought, would require a special essay to itself. And so we must leave it; only with this assurance, that to anyone who will patiently and reverently make his study therein, it will come as a word of revelation, voicing the aspirations, the temptations, the bewilderments of the living soul, as it finds itself face to face with the eternal realities of the Spiritual Universe. It is a noble argument on behalf of the noblest Christianity.

It was not till three years after the death of his wife that Browning published the *Dramatis Personæ*, of which I shall have something more to say just now. In 1868 his long-studied and patiently-wrought-out masterpiece, *The Ring and the Book*, appeared. This is a marvellous work, phenomenal in conception and execution, as it is portentous in length. It is an evidence of the author's genius that a story of so little apparent intrinsic worth bears to be told *eight* times over, as it is, from different points of view. It is the record of a magnificent trial at Assize, and we listen to the various witnesses, to the great pleaders on either behalf, to the murmurs of common opinion, and to the summing-up of the judge, with an attention that is

unwearied and breathless. And when the verdict is given, "Not guilty!" we hear it with a sigh of relief; and then silence falls upon us, even as once it fell on Heaven by the space of half an hour!

After the publication of *The Ring and the Book*, Robert Browning's position as a poet was fully recognised. Fame had come to him, with its manifold acknowledgments—and with its penalties. His whole mode of life was transformed. He resided henceforth in London, taking a summer trip, mostly to some seaside village in Brittany, in order to recruit those physical energies that, for a time, seemed inexhaustible. He became a society man; and when one asked in those years, "What is Browning doing now?" the reply was, "Dining out."

Yet he did more than that. He produced a new poem or volume of poems almost every year — *Balaustion's Adventure* in 1871; *Fifine at the Fair* in 1872; *Red Cotton Nightcap Country* in 1873; *Aristophanes' Apology* in 1874; *The Inn Album* in 1875; *Pacchiarotto* in 1876; *La Saissaiz* in 1878; and *Dramatic Idylls* in 1879. In 1883 appeared *Jocoseria*, and *Ferishta's Fancies* in the following year. Then there was a pause. The man was seventy-two years of age, and his life-work was almost done. The recuperative power of the hitherto active frame became less and less. He suffered from no definite illness, but a succession of colds, each winter, reduced his vitality. In 1887 he published *Parleyings with Certain People of Importance*. In the autumn of 1889 he went to Italy, and enjoyed a revisit to the scenes that had been familiar to his youth. He lingered at Asolo, where he was negotiating for the purchase of a house. Then at length he moved on to Venice, where his son was residing. He arrived there, but it was only to die. It was a comfort to him, almost in his last conscious moments, to hear that his latest

volume, *Asolando*, had been favourably received by the press. On the 12th of December Robert Browning died. His remains were brought to England, and laid to their final rest in Westminster Abbey between the bones of Chaucer and Cowley.

The genius of Browning is essentially dramatic, but this is not equivalent to saying that he was a great dramatist. Quite otherwise. To be a great playwright a man must indeed possess dramatic insight, but he must also be dowered with other gifts. He must have something of the storyteller's knack; he must have a keen vision for dramatic effect; he must understand his public, not alone his puppets; he must have the power of adequate expression, so that the *spoken* word may be easily apprehended, and that at a first hearing. Browning, after a not very comfortable experience of play-producing, perhaps came to know his limitations; at all events—as it was ever in him to do—he elected to follow his inclinations. He studied human beings, not as they flit hither and thither across life's stage, acting and reacting one on the other, making or marring one another's fortunes; he studied them as units. In a silent chamber he laid the soul on a moral dissecting-table. He pursued his work with scalpel and with microscope. The results of his analysis he offered with a grave, patient smile to that British public of which he says that “it liked him not!” Hence the “Men and Women” (originally fifty in number) whom he presents to his wife in the charming lines entitled “One Word More,” dated London, 1855; hence, ten years later, the volume, *Dramatis Personæ*—characters, that is, not of one restricted show, but of that great world-drama in which all men and women are merely players. All this is in accordance with our poet's avowed

principle, as he laid it down in the dedication to *Sordello*. "The historical decoration," he says, "was purposely of no more importance than a background requires; and my stress lay on the incidents in the development of a soul: *little else is worth study*. I, at least, have always thought so . . . others may one day think so." This is just what Pope put plainly when he wrote, "The proper study of mankind is man."

I shall account it an honour if I am able to introduce a few from out this goodly company to some who are here to-night. Yet well I know that there are those in my audience, and not a few, I trust, who, as I utter the hesitating formula, "May I have the pleasure?" will stop me with the dignified interruption, "Thank you, we have met before; Mrs. Lee is an old friend of mine; I have had many an argument with Cleon (at the Athenæum Club); I have cracked a merry joke and drunk a glass of wine with Fra Lippo Lippi; I was introduced to Bishop Boulgram (when he apologised for himself at the Church Congress); years ago I bought (for an old song) a work from the easel of Pictor Ignotus—poor fellow, he was always most absurdly sensitive! I met the Grammarian at some philomathical society—I noted his wheeze, and subsequently attended his funeral; Johannes Agricola is not much in my line, yet ever so long ago I heard him preach in a Liverpool pulpit—it was a three-decker, and had a comfortable, pillow-like cushion for the good man's arms to rest on; more recently I have heard (at a bachelor club I sometimes frequent) Caliban, over his grog, freely giving his views upon Setebos; and finally—tell it not in Gath, nor yet at the 'Lit. and Phil.'—I have even stooped to meet Mr. Sludge, the Medium, at a private *seance*!" Well, sir, I humbly crave your pardon. I see that you, too, have walked among these men and women, as I have

done for thirty years ; and I hope that if any favourite be now omitted, you will, when the time for criticism arrives, stand up and demand why the reader of the Paper so stupidly omitted this one, or so slightly passed over that other. And I will answer—as I now do by anticipation—"The exigencies of the occasion, good sir. They are all, all honourable men ; but time did not suffice for many introductions."

Well, ladies first ; and first among them Mrs. James Lee, as she stands self-pourtrayed in the opening pages of the *Dramatis Personæ*. Hers is an "old woe o' the world," but one that is on the way to being cured as woman more and more emerges from the shadow of the "dominant partner," claiming and winning the right to possess herself in soul and body. Mr. Lee was one of those whom friends call a "right good fellow ;" acquaintances, "not a bad sort," with, it may be, the added qualification (as they come to know him better), "if you take him the right way." His wife had the misfortune to be a woman of genius, and apparently she did not take him the right way. She was not, it may be, a very beautiful woman, not graceful, not lively. She speaks disparagingly of her "coarse hanks of hair ;" she opines that "there was nothing she ever did with a grace," that

Her wisdom had bidden his pleasure good-bye,
Which would turn up next in a laughing eye.

Yet she was a true woman, and had loved him not only well but wisely. And he had loved her too—or at least had fancied that he did so

The story opens with one of our author's charming, short-lined lyrics. To the new-made wife, hanging with face upturned to meet her lover's lips and eyes, it seems

as though the mystery of existence and the interfitness of things one with another was for the first time revealed :—

Thou art a man,
 But I am thy love!
 For the lake, its swan;
 For the dell, its dove;
 And for thee (O haste!)
 Me to bend above,
 Me, to hold embraced.

Yet even in that moment of rapture, fears had flooded her too prescient soul! A sudden storm, as they watch from the window chills her blood, and is pregnant with the suggestion of disaster—nature outraged, “summer stopped,” and all life’s sunshine drowned in the winter of a coming discontent!

Ah! soul too sensitive. In the next scene, “By the Fireside,” the woman sits alone. It was a poor place this in which they were living—a four-roomed house on the treeless, wind-vest coast of Brittany (that Pornic, no doubt, where Browning so often went in search of health—not of the beautiful—in his latter years). Thus sitting alone, she notes that the fire (for it is autumn now) is made up entirely of “shipwreck wood,” the dreary flotsam of the sea. That sets her thinking of other shipwrecks :—

Well, poor sailors took their chance; I take mine.

Then, by a subtle, swift suggestion, her thoughts are with some toiling ship far out at sea; she imagines the sailors in their extremity, gnashing their teeth

For hate
 O’ the warm safe house and happy freight,

from which they fancy the light streams forth across the waste of tumultuous waves. Ah! they need not to be jealous—they may “spare the curse.” Then, in the

bitterness of her disillusionment, she wonders if ever there had been sorrow like to hers—

Did a woman ever—would I knew!
 Watch the man
 With whom began
 Love's voyage full sail (now gnash your teeth!)*
 When planks start, open hell beneath
 Unawares?

All things now portend disaster, desertion. Thus, she stands "in the doorway," and notices that

The swallow hath set her six young on the rail,
 And looks seaward:
 The water's in stripes like a snake, olive-pale,
 To the leeward—
 On the weather side, black, spotted white with the wind.

Therein lies sure presage of sorrow—

Good fortune departs, and disaster's behind—
 Hark, the wind with its wants and its infinite wail!

But she will not yet abandon hope—not, at least, before there has been a full and frank explanation. This is given as they walk along the beach—

"I will be quiet, and talk with you."

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But the pleading is vain. The deserted wife wanders alone. The wind, still ailing, seems to moan to her for sympathy—

"Art thou a dumb, wronged thing that would be righted,
 Entrusting thus thy cause to me?"

Then, a bright day brings passing solace—"Among the Rocks"—

* This, of course, is addressed to the sailors, who enviously watch the firelight.

Oh, good gigantic smile o' the brown old earth,
 This autumn morning-
 Listening the while, where on the heap of stones
 The white breast of the sea-lark twitters sweet.

Then she seeks comfort in art, and learns a lesson from her village model—the “little girl with the poor, coarse hand.”

Then comes the final parting, and the last words spoken “on the deck.” The man goes away—goes over the sea, free, heart-whole, relieved. The woman remains—remains to bear the burden of a memory that cannot die, of a love that has become a part of herself, that must be with her while life endures.

I should like now to introduce you to the Grammarian. None but Robert Browning would have been likely to see much poetry in this man or in the aims of his laborious life. The time, we are told, is “shortly after the revival of learning in Europe.” The Grammarian was one of the oft nameless and forgotten throng who laid broad and deep the foundations of the new learning, and paved the way for the splendid triumphs of the Renaissance. His pupils, bearing their loved master to a fit resting-place on a lofty mountain-top, where the beams of the rising sun will early strike on his grave, chant his praises as they march together—

“He whom we convoy to his grave aloft,
 Singing together,
 He was a man born with thy face and throat,
 Lyric Apollo!”

But from youth he dedicated himself to learning, “decided not to live, but know.” So his pupils found him learned indeed, but prematurely aged—

. eye like lead,
 Accents uncertain.
 Time to taste life, another would have said,
 “Up with the curtain!”

This man said, "Actual life comes next,
 Patience a moment!
 Grant I have mastered learning's crabbed text,
 Still, there's the comment."

And so the hero toils on. And when they whispered.
 "Live now or never," he said, "What's Time? leave Now
 for dogs and apes! man has Forever."

Back to his books then: deeper drooped his head:
Calculus racked him;
 Leaden before, his eyes grew dross of lead:
Tussis attacked him.

And thus, scorning delights and living laborious days, he
 worked on—

So, with the throttling hands of Death at strife,
 Ground he at grammar;
 Still, through the rattle, parts of speech were rife,
 While he could stammer.
 He settled *hoti's* business—let it be!
 Properly based *oun*—
 Gave us the doctrine of the enclitic *de*,
 Dead from the waist down.

A hero, was he not? Worthy of the sepulture to which
 they bore him so proudly. And this is the moral of the
 tale:—

That low man seeks a little thing to do,
 Sees it and does it:
 This high man, with a great thing to pursue,
 Dies ere he knows it.
 That low man goes on adding one to one,
 His hundred's soon hit:
 This high man, aiming at a million,
 Misses a unit.
 That has the world here—should he need the next,
 Let the world mind him;
 This throws himself on God, and unperplexed
 Seeking shall find Him!

I must spare a page for Cleon—the poet supposed to be quoted by St. Paul in his speech at Athens as having said, “we are also his offspring.”

The subject is presented in the form of a letter sent by the poet to his patron, Protos.

Cleon the poet (from the sprinkled isles,
Lily on lily that o’erlace the sea,
And laugh their pride when the light wave lisps “Greece”)—
To Protos in his Tyranny: much health.

He proceeds to thank the king in courtly fashion for the presents he had sent, and thereafter enters on the discussion of many questions of philosophy and art. He criticises some things said by Protos in a former letter, and finally is brought on to the subject of a possible life beyond the grave. It appears the king had spoken the common clap-trap about the artist surviving in his work—

Sappho survives because we sing her songs,
And Aeschylus because we read his plays.

Then the whole bitterness of the human soul within the poet bursts forth. “Why,” he says, “this was the very horror of the thing, that his work would survive when for him there would be no longer any perception or enjoyment of it.”

It is so horrible,
I dare at times, imagine to my need
Some future state revealed to us by Zeus,
Unlimited in capability
For joy, as this is in the desire for joy. . . .
But no! (he concludes)
Zeus has not yet revealed it; and, alas,
He must have done so, were it possible!

Then comes the tragedy. It seems Protos had, in the largeness of his Greek tolerance, sent some presents for “one called Paulus.” The critic, the artist, the refined

man of the world is duly disgusted. He knows nothing about this Paulus, and will not trouble to know. Then he concludes with a fine scorn—

Thou canst not think a mere barbarian Jew,
 As Paulus proves to be, one circumcised,
 Hath access to a secret shut from us?
 Thou wrongest our philosophy, O king,
 In stooping to inquire of such an one.
 As if his answer could impose at all.
 He writeth, doth he? Well, and he may write.
 Oh, the Jew findeth scholars! certain slaves
 Who touched on this same isle, preached him and Christ;
 And (as I gathered from a bystander)
 Their doctrine could be held by no sane man.

Now let us turn the magic page to Andrea del Sarto, and see how different is the vision and the aspiration of yet another artist soul after the lapse of over a thousand years, when the doctrine that "could be held by no sane man" had taken its firm root in the great soul of the new world. Andrea is conscious of failure, as Cleon could scarcely have been. He was called "the faultless painter," faultless in executive skill, but destitute of the spirit that giveth life. None knew it as well as he did himself, and he too knew the cause. There was the faithless wife, sensuous and of the earth, dragging him down, fooling him to his very face. And yet, loving her as he did, he could not choose to have it otherwise. Ah, he says,

You beautiful Lucrezia, that are mine!
 Rafael did this, Andrea painted that—
 The Roman's is the better when you pray.
 But still, the other's Virgin was his wife—
 Men will excuse me.

And what was this man's last hope and dream at the close of a wasted, ruined life? He had received the wages of shame, and yet was always poor; his faithless wife had

plundered him, and his parents died in want. "What would one have?" he asks. Nothing *now*. "You loved me quite enough, it seems, to-night; that must suffice me here." But *there*, in the world beyond, the world that Cleon yearned for glimpse of—

In heaven perhaps, new chances, one chance more—
 Four great walls in the New Jerusalem
 Meted on each side by the angel's reed,
 For Leonard, Raphael, Angelo and me
 To cover—the three first without a wife,
 While I have mine! So—still they overcome
 Because there 's still Lucrezia—as I choose.

Matthew Arnold, in one of his recently published letters, says of Tennyson that "with all his temperament and artistic skill, he is deficient in intellectual power; and no modern poet (he adds) can make much of his business unless he is pre-eminently strong in this."

Again, weighing himself in the balance with his two great contemporaries, he writes:—"It might be fairly urged that I have less poetical sentiment than Tennyson, and less intellectual vigour and abundance than Browning; yet, perhaps, because I have more of a fusion of the two than either of them, and have more regularly applied that fusion to the main line of modern development, I am likely enough to have my turn as they have had theirs."

It is this "intellectual vigour and abundance" of Browning that fills his admirers with ever increasing delight and wonder. Beside him all other poets since Shakespeare seem thin and hollow. And, observe, the vigour and abundance is far from being merely "intellectual" (as Arnold says); it is the vigour and abundance of the whole man, of perception, imagination, and emotion. We may say of almost any of the longer works what Mr. Gosse says of *Sordello*, that "it possesses passages of

melody and insight fresh enough, surprising enough to form the whole stock-in-trade of a respectable poet."

Turn the pages of that yet earlier work, *Paracelsus*, of which Macready so truly said that it "was starred with poetry of thought, feeling, and diction." Take such an image as this, by which the poet illustrates his dictum that "God ne'er dooms to waste the strength he deigns impart"—

Ask the gier-eagle why she stoops at once
Into the vast and unexplored abyss,
What full-grown power informs her from the first,
Why she not marvels, strenuously beating
The silent boundless regions of the sky!

Who since Milton, unless it were Shelley perhaps, could have written those words, "strenuously beating the silent boundless regions of the sky?"

Here is a description, appealing alike to eye and ear, of stillness following on a storm—

See,

The night, late strewn with clouds and flying stars,
Is blank and motionless: how peaceful sleep
The tree-tops altogether! Like an asp
The wind slips whispering from bough to bough.

From this general power of presentation and illustration, we may readily pass to the consideration of a quality that, I venture to think, should be a prime factor in the due appreciation and relative co-ordination of all art products. This is the quality of *concentration* and *suggestion*. It is in a few bold strokes that the master-soul reveals itself. The true artist never exhausts his subject. He appeals, not alone to the perception, but to the imagination of his public; and for that very reason, the response is apt to be partial, slow, and hesitating. "Minds that have nothing to confer find little to per-

ceive," is the wise dictum of Wordsworth. But as in intellect and imagination, so, too, in art, are there gradations—gradations ranging from zero to infinity. An auctioneer's catalogue is not art (though it may paint for you a very pretty picture of a cosily-furnished drawing-room)! Neither is there much of art in such a picture, for instance, as *Margate Sands*, or the *Derby Day*, except in so far as this or that detail suggests some story of human emotion. And so, a mere rhymed and metred narrative or argument is not poetry (though the many may call it so); it is only poetry in so far as it is relieved by some occasional gleam of fancy or happily phrased illustration—" *rari nantes in gurgite vasto*."

I am not depreciating these lower forms. It would be a dull monochrome world if there were no art save High Art in it. The multitude has a right to be fed, and each man is wise to choose that nutriment which he finds he can best assimilate. There is no reason you should be ashamed of your Mrs. Hemans or afraid to admire Longfellow. Through them—for in the using our powers grow stronger—you may rise to Byron, Wordsworth, and Tennyson; by and by you may even walk with Shelley and Robert Browning!

All this is so, and it is well that it should be so. None the less do I venture to think that the true and lasting quality of Art, its purity and exaltation, is in direct ratio to its concentration, to its "reticence," to its economy of material, to the fewness of its lines; and that, because these very negations render the appeal to the recipient soul at *once more essential and more direct*.

In this quality of concentration and suggestion we claim for Browning the premier place. It is part of his "abundance." With him a single line may contain a lyric, and a mere epithet may suggest a poem. Quotation

is difficult; for, out of mines of wealth, there is no reason why you should select this or that gem in preference to a hundred other. Just lift a handful, then, haphazard.

Rejoice that man is hurled
From change to change unceasingly,
His soul's wings never furled!

A whole philosophy is here: man, the creature of circumstance, "hurled," as it were, through space and change; yet man resistant, with wings instinct to save him even as he falls.

Or take this description of Him who appeared in vision on Easter Day:—

The whole God within His eyes embraced me!"

Listen to Paracelsus describing the oft-described transition of the seasons:—

. . . Earth is a wintry clod:
But spring-wind, like a *dancing psaltress*, passes
Over its breast to waken it; rare verdure
Buds tenderly upon rough banks (between
The withered tree-roots and the cracks of frost),
Like a smile striving with a wrinkled face.

.
The lark
Soars up and up, *shivering for very joy.*

That, to me, is better than "Bird of the wilderness"—
better, almost, than "Hail to thee, blithe spirit."

But awhile ago, and it was winter, when

The wroth sea's waves are edged
With foam, *white as the bitten lips of hate.*

This is how death came to "beautiful Evelyn Hope"—

. . . God's hand beckoned unawares,
And the sweet white brow is all of her.

And *this* is how the like event came to pleasure-seeking men and women in sunny Venice long ago :—

. . . in due time, one by one,
Some with lives that came to nothing, some with deeds as well
undone,
Death came tacitly and took them *where they never see the sun*.

What an epitome of the higher mountain scenery is in the couplet—

How sharp the silver spear-heads charge
Where Alp meets Heaven in snow.

What a Song of Songs is here :—

. lips
Fresh as the wilding hedge-rose-cup there slips
The dew-drop out of !

And what a volume on inconstancy is compressed into the lines—

Re-issue looks and words from the old mint,
Pass them afresh, no matter whose the print,
Image and superscription once they bore.

Here, too, is a fine image :—

With me faith means perpetual unbelief
Kept quiet like the snake 'neath Michael's foot
Who stands calm *just because he feels it writhe*.

In treating of *Form*, I find it will be necessary to limit myself to the mechanism of expression, *as apart from the idea to be expressed* ; this is the general question of *style*, including metre, rhythm, rhyme, etc.

Browning has a style of his own, just as Carlyle had, and it is a style which I am in no way concerned to defend. The complaint of his obscurity is well founded ; and at least in the case of *Sordello* he was led to admit as much in later years. He tried to mend that work, but naturally he failed. To amend himself he apparently

made no effort. Nor was he likely to do so after he had compelled the admiration of a public that so long had slighted him. He writes in 1864: "As I begun, so I shall end—taking my own course, pleasing myself or aiming at doing so, and thereby, I hope, pleasing God." It is a very comforting doctrine, that, and throws a nice glamour over self-will—that in pleasing oneself one is pleasing God at the same time!

But in truth, the ruggedness and obscurity of Browning have been very greatly exaggerated. He can be lucid when he likes, as witness the plays that were written for stage presentation, such as *Strafford* and *Columb's Birthday*. And he very often does choose. There is no difficulty, other than that of following the rapid transitions of thought and fancy in such poems as "By the Fireside," "The Italian in England," "Saul," "The Lost Leader," "Cleon," the greater part of "James Lee," and many others.

Browning has touched, and in touching adorned, nearly every sort of metre, and in the matter of rhyme he is simply unapproachable.

For specimens of rhymes—rhymes delightful, rhymes demented, rhymes startling, rhymes scandalous, rhymes far-fetched, and rhymes that seem fortuitous—I should like to read the two pieces, "A Likeness," and "Youth and Art." In the former we have, as adornments of a bachelor's chambers,

The cards where pistol-balls mark ace,
And a satin shoe, used for cigar-case.

(This I call a rhyme inevitable, for having acquired the shoe, to what fitter purpose could he have put it?)

Then there is "shot in the Chablais" and "the little edition of Rabelais;" the "tandem-lasher" and the

"Tipton Slasher;" "the hair" (in the likeness) "not so bad where the gloss is, But they've made the girl's nose a proboscis." There is "the debt of wonder my crony owes,—paid to my Marc Antonios." Then there is "the sweet thing there, the etching." And the heart making answer with the lyric cry, "How my waistcoat strings want stretching!" "Tomatoes" rhymes with "Volpato's," and "keepsake" with "hearts, after leaps, ache." See also the charming little poem, "Youth and Art."

But I must turn from these lighter fancies to consider, before concluding, the *moral and spiritual basis* on which the varied superstructure of Robert Browning's art was, from the first, built up. That basis was GOD—God as Will behind all other wills, as Cause behind all other causes, as Intelligence informing all other intelligences, as Love inspiring all that is lovely in the life of man. And as the irresistible sequence of that creed, there was in him the assured hope of a conscious, individual immortality.

This faith, incidentally illustrated throughout his writings, is fully set forth in *Christmas Eve and Easter Day*, *A Death in the Desert*, *Saul*, and in one of his later poems, *La Saisiaz*. Of this work Mrs. Sutherland Orr says that "it is the author's first—and also last—attempt to reconstruct his hope of immortality by a rational process based entirely on the fundamental facts of his own knowledge and consciousness—God and the human soul." She asserts that this argument leaves no place for the idea, however indefinite, of a Christian revelation on the subject. "Christ," she says, "remained for Mr. Browning a mystery and a message of Divine love, but no messenger of Divine intention towards mankind." I cannot myself accept this distinction as of much value. Again, she says—and surely says by way of depreciation—that his message is most powerful when least explicit. "His

challenge to Faith and Hope imposes itself far less through any intellectual plan that he can advance in its support, than through the unconscious testimony of all creative genius to the marvel of conscious life; through the passionate affirmation of his poetic and human nature. not only of the beauty and goodness of that life, but of its reality and its persistence." But what else is it than this "intuition of the soul" that renders any so-called revelation arguable? It certainly can never rest solely on "an intellectual plan advanced in its support."

If, for my part, I were to criticise Browning's position as regards the mysteries of the moral and spiritual world, it would be to express some impatience with his cheery, arm-chair optimism. It seems like the outcome of defective sympathy; and it is the more remarkable in the husband of the woman who wrote "The Cry of the Children." We suspect it to be easy for a man born in the comfortable class, who had never known poverty, and for long years enjoyed boisterous health, a man dowered with manifold gifts and graces, choosing for his abode the fairest spots in Europe, never having had the experience—as he tells us himself—of being obliged to do anything to-day that he chose to postpone till to-morrow; it is easy for such an one to even boast that he has never doubted that all is for the best, and that everything will come right somehow. It is an easy creed for those to whom the lines have fallen in pleasant places.

Take the expression of it in the poem entitled "Apparent Failure." In somewhat humorous, not to say rollicking, mood he visits the Morgue, and there sees

The three men who did most abhor
Their life in Paris yesterday,
So killed themselves: and now enthroned,
Each on his copper couch, they lay

Fronting me, waiting to be owned.
I thought, and think, their sin's atoned.

Cheap justice this, and very comforting!

Then he speculates as to how these poor fellows had come to be in their present plight. One, "poor boy," it appears, "wanted to be Buonaparte, and have the Tuileries for toy." The next was an old anarchist ("be quiet, and unclench your fist"). The third was merely a low, passion-driven blackguard.

Not a very interesting trio! but upon them is based the conclusion—

It's wiser being good than bad;
It's safer being meek than fierce!
It's fitter being sane than mad.
My own hope is a sun will pierce
The thickest cloud earth ever stretched;
That after Last returns the First,
Though a wide compass round be fetched;
That what began best, can't end worse,
Nor what God blessed once, prove accurst,

Well, we find no fault with that; doubtless it is a blessed hope and full of immortality. Only we turn away with a sigh of thankfulness that *she* did not lie on the copper couch (a lucky chance, surely, in beautiful Paris!) on whose behalf the direction and the solemn charge went forth—

Take her up tenderly, touch her with care!
Fashioned so slenderly, so young and so fair!

Must we fall back on the doctrine of Bishop Boulogram—

Some think Creation's meant to show Him forth:
I say it's meant to hide Him all it can,
And that's what all the blessed Evil's for.

So far as I know the tenderest touch of common

human fellowship displayed by Browning is where he refuses to be flattered and comforted with the idea that he is a "superior person," through the subtle music of Galuppi's Toccata:—

Dust and ashes, dead and done with, Venice spent what Venice earned!

The soul doubtless is immortal—where a soul can be discerned.
Yours for instance, you know physics, something of geology,
Mathematics are your pastime; souls shall rise in their degree;
Butterflies may dread extinction—you'll not die, it cannot be!
As for Venice and its people, merely born to bloom and drop,
Here on earth they bore their fruitage, mirth and folly were the crop.

What of soul was left, I wonder, when the kissing had to stop?
"Dust and ashes!" So you creak it, and I want the heart to scold.

Dear dead women, with such hair, too—what's become of all the gold

Used to hang and brush their bosoms? I feel chilly and grown old.

The truth is, Browning was not born among the people, nor yet did he dwell among his own people. The "dim common populations," with their wants, their woes, their aspirations, and their agonies, were apart from him. More's the pity. In *Paracelsus* he paints a fair picture of what the true poet might be and should aspire to be. After speaking of what he would do for his "higher loves," he continues—

. . . . But not these alone
Should claim my care; for common life, its wants
And ways, would I set forth in beauteous hues.
The lowest hind should not possess a hope,
A fear, but I'd be by him, saying better
Than he, his own heart's language.

But that laureateship of the English people (in which Shakespeare has had no successor) was not for Robert Browning. Though the truest of Englishmen in nature,

the fact of his having lived so much abroad must have put him somewhat out of touch with any English life, save that of London society, and even that he was not much conversant with till his declining years. Beautiful as was his married life, we can fancy that his long residence in Florence with an invalid wife was somewhat enervating; to a less inherently robust nature it might have been ruinous. It is a little startling to find Matthew Arnold writing, after meeting Mrs. Browning in Florence, that she was "hopelessly confirmed in her aberration from health, nature, beauty, and truth." Such an influence can scarcely have been altogether wholesome. It is remarkable how few of Browning's subjects are distinctly English; of the longer works none almost, except *Strafford* and *The Blot* (for *Christmas Eve and Easter Day* is cosmopolitan). What a possession for ever would it have been for us had the genius that culminated so splendidly in *The Ring and the Book* wrought out its marvellous power on a home-suggested subject, rather than upon an obscure "Roman murder story," that chanced to touch a chord of curiosity or sympathy. Then, indeed, would we have had to-day an age-marking epic of our England—the England of Chaucer and Shakespeare.

And for this reason, if for no other, Tennyson will probably remain more popular than Browning. He lived in England, and the life of England lives in his poems. *The May Queen*, *The Grandmother*, *The Northern Farmer*, *Locksley Hall*, reproduce varying phases of our manifold English life. *Enoch Arden* tells what may well be a true story, and in language that might justify the assumption of Sordello's description—

The lowest hind should not possess a hope,
A fear, but I'd be by him, saying better
Than he, his own heart's language.

In Memoriam is essentially English, since even its most far-reaching speculations and subtlest introspections are interwoven with local associations and indissolubly blended with the personality of the author and that of his friend. It may be that the England of the *Idylls* is a somewhat hazy region, and more like to fairy-land than to the busy England of to-day. But still, there is the feeling of historic continuity, and we readily make allowance for those mystic efforts which the long perspective of the ages evolves. After all, we do not lose the consciousness of our own persistent individuality, even though memory takes us back to days when we too walked in fairy-land in the glory of a light such as never was on land or sea!

But in truth, England yet awaits the advent of her Robert Burns—of a great national poet—a man with eyes to see the splendour of national achievement, and with a heart to throb consonant with the persistence and pathos of our multiform modern life. Surely “our island story” has not been so eventless and obscure but that some part of it might be found proper to kindle and sustain the epic fervour of a true poet! And who shall dare affirm that the common life of to-day does not afford themes worthy of poetic treatment? Was ever life so varied, so ample in its self-determination, and yet so beset by casualty, so free, so fearless, so arduous, so aspiring? Day by day, hour by hour, the vast and complex mechanism that directs an empire is kept in order by the skill, the patience, the fidelity, often the heroism of men who are unknown, unnamed, unhonoured, and unsung. Things are done every day, and as a matter of course, by rough men and women which, were they done once in a lifetime by a peeress or a bishop, would set us all agape and agasp till we found words superlative enough to utter forth our adulation and amazement! There is poetry in

the coal mine, in the locomotive, in the fire brigade, in the lifeboat, in the great ocean steamer. Occasionally the lyric cry goes forth from some unknown or but half-recognized singer. We listen, approve, applaud, then straightway go our way and remark, when opportunity occurs, that this is a prosaic age !

But speculations such as these would lead us far ; and, after all, it is our business to take our poet as he has been given to us. Were he otherwise than he was, he would not have been Robert Browning, and it is of Robert Browning and his work that I have presumed to speak to-night. Should I, in some, have revived pleasant memories ; should I, in others, have kindled a spark of appreciative sympathy, and therewith a determination towards further study, then the object of this Paper shall have been attained. Such study will not weary, and it will be amply repaid. It will bring you face to face with a man on whose like we may not quickly look again ; it will bring you into touch with one of the formative influences of this age, into communion with a thinker, a seer, and a poet, of whose work, as a whole, I, at least, would say, as the *Athenæum* said of his *opus magnum*, *The Ring and the Book*, that “ it is not merely beyond all parallel the supremest poetic achievement of the time, but the most precious and profound spiritual treasure that England has produced since the days of Shakspeare.”

ON SOME RUNIC REMAINS.

BY THE REV. J. SEPHTON.

(In the following lecture, figures in brackets refer to the diagrams of inscriptions at the end. "R. M." refers to Dr. Stephens's *Runic Monuments of Scandinavia and England*; "II." to the *Handbook of Runic Monuments*, by the same author.)

In my lecture this evening I purpose bringing to your notice, by the help of photographic slides, some ancient objects left to us by our Teutonic ancestors of the early middle ages. Some of these would attract notice for several reasons; others would probably be passed over by a casual observer; but they are all particularly interesting to students of old Northern literature, because they are inscribed with words or sentences in old Northern languages or dialects written in peculiarly-shaped characters or letters known as Runes. They have been found in different countries, though chiefly in Scandinavia, Denmark, and England.

The relics on which Runes are inscribed are of many kinds—rings, swords, bracteates, amulets, combs, horns, and other such moveable property. They are inscribed on a large number of standing stones, set up as memorial stones of the dead, Christian and heathen, or as commemorative of some great event; on fonts and bells in churches, crosses and slabstones in Christian churchyards; caskets, coffins, and even on rocks *in situ*. In point of date the latest remains are probably the many memorial stones called Bantasteinar, or way-stones, found on the borders of Lake Mælar, and in other parts of

Sweden. Most of these are shown by their inscriptions to be Christian, and the conversion of Sweden to the Christian faith was scarcely complete before A.D. 1100. Reckoning upwards from this point of time we have relics of various dates reaching probably as far back in the years as A.D. 400. They thus cover a period of seven centuries.

In this long stretch of time we find, as we should naturally expect, that the shapes of the Runic characters vary considerably; and not only so, but even the same shape of letter has borne different powers at different times and in different places. So that the reading of a Runic inscription may give rise to the stormiest controversies, and rouse the angriest passions of the human breast. We may safely say that from the time of the Swedish antiquaries Burœus and Verelius in the seventeenth century, who first attempted the reading of Runes, down to our own day, no two eminent Runologists have ever been in exact accord with one another. And there are causes for the uncertainty that shrouds the subject. The oldest inscriptions are often mere groups of letters without division into words; the letters are worn and indistinct, and thus often quite illegible; there is doubt as to the phonetic value of some of them; and though men should be agreed on the reading of the letters, the words themselves are often local dialectical forms not found elsewhere; so that there is abundant scope for differing, and for quarrelling. In fact, no study affords larger scope to a person of combative disposition than that of Runes. It had better, therefore, be said at the outset that there is little or nothing original in the following remarks, nothing to invite opposition.

The Runic alphabet is called the Futhork, from the

- (1) የቦታዊ ጥበቃ ማረጋገጫ ማረጋገጫ
- (2) የቦታዊ ጥበቃ ማረጋገጫ ማረጋገጫ
- (3) የቦታዊ ጥበቃ ማረጋገጫ ማረጋገጫ
- (4) የቦታዊ ጥበቃ ማረጋገጫ ማረጋገጫ
- (5) የቦታዊ ጥበቃ ማረጋገጫ ማረጋገጫ
- (6) የቦታዊ ጥበቃ ማረጋገጫ ማረጋገጫ
- (7) የቦታዊ ጥበቃ ማረጋገጫ ማረጋገጫ
- (8) የቦታዊ ጥበቃ ማረጋገጫ ማረጋገጫ
- (9) የቦታዊ ጥበቃ ማረጋገጫ ማረጋገጫ
- (10) የቦታዊ ጥበቃ ማረጋገጫ ማረጋገጫ

order of the letters, an order different from that of the usual alphabet. There are two main forms, an older one and a later one. The older form is much fuller in the number of its letters, varying according to time and place from twenty-three upwards. This older form is the alphabet used in the Northumbrian inscriptions of this country, and in the oldest of the Scandinavian inscriptions. Thus we are able to fix, approximately, the date of its first appearance, and infer that the Angles must have brought it with them when they left the Continent to found their settlements in Northumbria.

The later form of the Futhork grew up in Denmark and Sweden after the use of Runes had died out in England. It contains only sixteen letters. But there is no immediate jump from the older form to the later. The Scandinavian remains show a gradual transition in the growth of the centuries; so that in the passage from the old to the new some characters disappear without being replaced; others change their power; and new forms come into being. Thus we find stages of so-called Intermediate or Middle Runes.

The shorter and later Futhork is shown in (1) :

f, u, th, o, r, k; h, n, i, a, s; t, b, l, m, y.

In such a limited alphabet several of the letters represent more than one sound; *e.g.*, the same letter was used for *p* and *b*. When the Roman alphabet came to Scandinavia with Christianity, attempts were made to enlarge the native Futhork, and bring it into agreement with the Roman alphabet. Thus, dotted Runes (1) came into being, *t, k, b, i*, and *u* being each dotted to represent *d, g, p, e, ð*.

The sixteen letters of the Futhork are divided into three groups, the first being called *Fé's* family, beginning with *f*; the second, *Hagl's* family, beginning with *h*; the

third, Ty's family, beginning with *t*; Fe, Hagl, and Tyr being the ancient names of the three letters, and meaning respectively cattle, hail, and the god Tyr.

An ancient example of the older Futhork is shown in (2). It is found on a sword-blade or large knife, between two and three feet in length, taken from the bed of the river Thames, and now to be seen in the British Museum. It dates probably from about the sixth century, and contains twenty-eight letters, eight in each of the three families, and four vowel sounds at the end :

f, u, th, o or *a, r, c, g, w, : h, n, i, j, eo, p, z, s :*
t, b, e, ng, d, l, m, o or *é : á. a* or *æ, ü, ea.*

The seventh letter in Hagl's family is the one which has given rise to the most violent discussions. It is rarely found, I believe, on early English Runic remains, but occurs frequently on the Continental ones. In the later Futhork it represents *m*, and is there called *Madr*, or *man*, from its shape. In the earlier Runes it is used as a final letter which occurs, *e.g.*, in the nominative case of some nouns, being *z* or *s* in primitive Germanic and Gothic, *r* in old Norse; but Dr. Stephens has endeavoured to show that it has the power of *a* or *æ*. The *ng* sound is represented by two *g*'s, as in Greek. The ambiguity which appears in attempting to fix the sound of the fourth and twenty-fourth letters will be elucidated in the remarks on the Vadstena Bracteate and the Ruthwell Cross.

Allusion may fitly be made here to two points in connection with the Futhork. Whence did our Angle forefathers and the Scandinavians obtain the forms of their letters? The question was very hotly discussed two centuries ago. The Scandinavian scholars maintained that it was the native product of their race, and the Runic stones were a testimony to an ancient civilisation, so ancient that it was the origin of all civilisation,

Egyptian, Greek, and Roman. These extravagant notions have disappeared, and modern scholars are content to see in the Runic letters degraded forms obtained from the Greek and Roman alphabets. The Greek letters reached the north on coins and other objects through the trading facilities afforded by the Black Sea and the river Dnieper ; the Roman letters by way of the Rhine. The origin of some forms presents difficulty, but the letters *f*, *r*, *g*, *h*, *i*, *t*, *b*, *l*, *m*, *ng*, and others of the old Futhork, can hardly be regarded as coinciding with Greek or Roman forms by mere chance.

The Futhork is so called from the order of its first six letters, the letters of Fe's family, and gives rise to the question, Where did the Northmen obtain this order of their alphabet? A question yet unanswered. Professor Skeat made a very interesting attempt to answer it in the *Academy* of November 22nd, 1890. The word "Rune" is supposed to be connected with the Greek word "*ereunao*," "to search out;" and in the Gothic gospels Ulphilas uses "*runa*" to represent, among other words, the Greek "*musterion*," or "mystery." The Scandinavian "*Rún*" was used to express something that was hidden, mysterious, or secret; and talismans or amulets inscribed with Runes were worn to preserve the wearer from evil and misfortune. Professor Skeat therefore conjectured "that the object of the arrangement was to give the letters the value of a charm to drive away evil spirits, cure the tooth-ache, and the like." But whence the order? The order, says the Professor, was obtained from the initial and other letters of the words in the Lord's Prayer. The letters of the Latin *Paternoster* were used in this way for the purpose of a charm; why not those of an Anglian or Old English form of the same Prayer? And he imagined a form of the Prayer, very much like the form in the Anglo-

Saxon Gospels, but, of course, centuries older :—" *Faeder ure, thu on heofonum; halgod-sy nama thin; thin rice cume; geworthe willa thin, ge on heofonum ge in eorþan.*" If the initial letters of this Prayer be taken, omitting those that recur, we get

f, u, th, o, h, n, r, c, g, w, i, eo,

letters which, with one slight dislocation, *h, n*, form the first half of the Futhork. Thus far, says the Professor, the original amulet-maker got, and then discovered that he could not by this means obtain the whole of the letters of the alphabet from the Anglian form of the Lord's Prayer. He therefore turned to the next petition in its Latin form : "*Panem nostrum supersubstantialem nobis da hodie.*" Taking thence the letters he wanted in the order in which they occur, he obtained *p, e, m, s, t, b, l, o, d*, which require considerable rearrangement before they can be brought into the Futhork order. But we find from the Futhorks that remain that the order of the letters in the latter part was by no means so fixed as that of the earlier part. It would appear, therefore, that the Professor has a real foundation for his very ingenious theory.

Every visitor to the museums of Scandinavia and Denmark must have been struck with the profusion of a class of early remains called bracteates. These are thin gold plates, of a circular form, the central part being an inch or so in diameter, stamped on one side with figures from a die, and set in an ornament which is sometimes very elaborate. By means of a loop in the rim they could be worn as personal ornaments suspended from the neck, arm, or waist. These bracteates are found chiefly in Scandinavia and Denmark, and many of them are stamped with Runes. They date from an early period, some being, perhaps, as early as the fourth or fifth century, but the custom of wearing them would not seem to have been

common at the time of the Angle invasion of this country, or more specimens would have been found here than have been found. For a similar reason, too, the custom must have died out by the ninth and tenth centuries, the time of the Danish invasions of England. The character of the devices on them has given rise to the supposition that the Northern workmen received their inspiration from Eastern sources. Those who have seen the old Norwegian churches, the *Stavekirkes*, at Fantoft, Christiania, and Borgund must have been struck by their pagoda-like aspect. Why may not the Northern artists and architects of the early middle ages have imitated Eastern models in the one case as well as the other?

A famous golden bracteate,* found at Vadstena, East Gotland, Sweden, in 1774, is now preserved in the Museum of Northern Antiquities, Stockholm. It is rendered peculiarly interesting and valuable by a ring of 31 Runic characters, of which 23 form an ancient Futhork (3). The letters of Fë's family resemble those on the Thames sword, except the fourth, which letter in the earliest Scandinavian Runes, corresponded in shape, possibly, too, in sound, with the twenty-sixth on the Thames sword. Afterwards, the fourth letter of the bracteate developed an *o* sound, and underwent a change of shape to the form seen in the later Futhork. In Hagl's family, *j* and *s* have forms different from those on the Thames sword. The *s* gradually took the first of the two forms found in the later Futhork. The *p* of the bracteate has a shape like that of *b*, though not so rounded. In Ty's family there is an omission of *d*, possibly from want of space; *ng* has a different form also; and the order of the letters differs from that on the Thames sword. The shape of the last letter is to be noticed; we see more clearly than

* *R.M.*, vol. ii, p. 533; *H.*, p. 173.

on the Thames sword that it is a copy of the Greek "Omega." Its sound was probably *o* in the earliest Scandinavian Runes. The Futhork on the bracteate seems to be distinctly older than that on the Thames sword.

The other eight letters on the bracteate read—

l, u, th, a; t, u, w, a,

which have been interpreted by Professor Carl Säve to mean "The people's alphabet." The two words are not unrepresented in the English language. The former we have preserved in the word "Court-leet," and the other in "tow-line."

The central device is very common on bracteates: a man, a bird, and a quadruped. Those archæologists who trace this device to India see in it a representation of the god *Shiva*, or his spouse *Durga*, standing beside an ox. It seems more natural to connect it, without denying Eastern inspiration, with the mythology of the North, and to consider that it represents Odin on his horse, or Thor on his goat. The bird may probably represent one of Odin's sacred ravens.

The next bracteate* is from the museum at Copenhagen. The device differs from that of the previous bracteate in that the man and animal are here separate. Moreover, we have two at least of those ancient, widely-spread pagan symbols whose religious meaning is still doubtful. One is the *Swastika* of the Buddhists, used in the North possibly as a symbol of Odin, though it has also been called the Hammer of Thor. The other one is the *Triskele*, a familiar device known locally as the "Three legs of Man." The Runic legend (4) is "*Salu! salu!*" "Luck! luck!"

A bracteate which is now in the museum at Upsala†

* *R.M.*, vol. ii, p. 531; *H.*, p. 173. † *R.M.*, vol. ii, p. 547; *H.*, p. 181.

is remarkable for the beauty of its ornament, which is arranged in several concentric circles round the ordinary central device. Observe the two circles of *sun-snakes* all set on end. The same symbol is found elsewhere in a horizontal position; it is so, for instance, on a carved stone at Isel Church, in Cumberland, where it is found in company with the *Swastika* and *Triskele*. Thus it is probably another of the ancient sacred emblems, which, as yet, are doubtfully interpreted. The Runes read *e*, *liti*, *l*, (5), *liti* being bound together so as to form a "bind-rune;" the word is possibly the name of a person by whom, or for whom, the bracteate was made. Etthil was a woman's name among the Celts.

An interesting suggestion has been made touching these bracteates. It seems probable that the custom of wearing them was an imitation of the Roman custom of wearing *bullæ*, which were children's ornaments, worn probably as talismans. Dr. Stephens suggested that bracteates might also be children's ornaments. When a Northern child cut its first tooth a present was made to it, called a *tannfé*, or tooth-fee. This custom remains in Iceland to the present time; in England the corresponding custom is to give a christening gift. A godfather who fulfils his duties, not only promises that his god-child shall be taught the Creed, Lord's Prayer, and Ten Commandments, but presents him with a silver mug, or fork, or other article, properly inscribed with the infant's name. May not the one custom be the lineal descendant of the other, and the silver mug represent the bracteates of old?

The tooth-fee in the North took different forms. When Earl Hakon the Bad cut his first tooth, his tooth-fee was a baby-thrall, born on the same day with himself, and bound henceforth to serve him body and soul. The dra-

matic story of the death of the two may be read in the *Heimskringla*, or the Saga of King Olaf Tryggvason.

In the Laxdœla Saga we are told the story of an Irish princess, Melkorka, carried away to Norway as a slave. She was there bought by an Icelfander, who took her home with him. Her son was Olaf Peacock, a famous man in his day. When he reached the age at which every Northman of good birth went abroad to see the world, his mother, Melkorka, gave him a gold finger-ring. "This present," she said, "my father, Myrkiartan, gave me as a tooth-fee; he will certainly recognise it when he sees it." And so it happened: when Olaf reached Ireland the ring procured for him the recognition of his grandfather.

In addition to the Thames sword and the Vadstena bracteate, there is a third famous object* which has an old Runic alphabet engraved on it—the Charnay brooch, or fibula, which dates probably from the fifth century. This silver-gilt brooch was found in a grave on the site of an old battlefield near the confluence of the river Saone with the Doubs, in the east of France, the traditional site of a battle fought by Clovis I, King of the Franks, against the Burgundians at the end of the fifth century. The eight letters of Fē's family in the Futhork (6) are engraved in full, the forms being exactly the same as those on the Vadstena bracteate. Hagl's family is also in full, but the *p* has here a shape of its own quite different from any we have yet had. It is like an *e* turned upside down. Two other letters, *eo* and *z*, are somewhat changed also, and the *s* is indistinct. Ty's family is incomplete, *t*, *b*, *e* only being fairly visible.

There are many other Runes engraved on the brooch, but in their reading and interpretation no two authorities agree. Some of the characters are too indistinct even to

* *R. M.*, vol. ii, p. 587; *H.*, p. 60.

guess at. But there seems to be a consensus of opinion with respect to the reading of five letters near the end of the inscription, as being *k*, *i*, *a*, *n* or *ng*, *o*. Now these suggest the meaning of "brooch." For the old Norse word for brooch is *kinga*; and *keeng*, meaning a clasp, is a living word in Shetland. Its presence on the brooch may be regarded as evidence, if more be needed than the Futhork, that the relic is of true Northern origin, and is not a specimen of Early French art, as might be supposed from the place of its discovery. It should be observed, however, that the Rune read as *k* is not on the engraver's own Futhork.

An arm-ring, now in the museum of Bucharest,* formed part of a golden hoard dug from a mound by a peasant near Buzeo, in Wallachia, and, from the reading of the Runes engraved on it, is considered to be one of the very earliest Runic remains. These Runes (7) may be read *gutaniowi hailag*; and, dividing the first word into three, may be translated, "Devoted to the new temple of the Goths." The use of the word *wi*, "temple," implies that the ring is a heathen relic; and as the Goths were converted to Christianity before A.D. 400, the ring is supposed to be of an earlier date. But it should be observed, with respect to the words used, that *Hailag* does not occur in the Gospels of Ulphilas, and that the forms, *nio*, *wi*, are Scandinavian, later than Gothic. Possibly, therefore, the relic, notwithstanding that it was discovered in Wallachia, should be regarded as having belonged to Swedish Gothland rather than to the land of the converted Goths. The ring may originally have been a votive offering to the gods, according to ancient custom. But it may also have been part of the ordinary furniture of some temple. In the account of a famous heathen

* *R.M.*, vol. ii, p. 567; *H.*, p. 203.

temple in Iceland we read thus: "Upon the altar of each principal temple shall lie a ring of at least two ounces weight. This ring the temple-chief shall wear on his arm when he presides at public meetings. And every man who is engaged, anyway, in law business shall make oath upon the ring, naming his witnesses. 'I name you as my witnesses,' he shall say, 'to the lawful oath I swear on this ring. So help me Frey, Niord, and the Almighty Thor, that to the best of my knowledge, I will aid the decision, according to justice, truth, and law, of whatever legal matters I am engaged in [as plaintiff, defendant, witness, jurymen, or judge,] while present at this Assembly.'" Not improbably this relic was a temple-ring, but there is no record that such was kissed in process of oath-taking by all sorts of people, like a modern micro-bous copy of the New Testament.

The Tune stone* was found, built into the yard-wall of Tune Church, which lies near the mouth of the river Glommen, and was removed to the garden of the University of Christiania, where it now is. There is no doubt about the antiquity of this relic. It is one of the oldest, if not the very oldest of Teutonic monuments, and its language has an unmistakeably Gothic form. One side of the stone thus reads (8): *Ec wiwaz after woduride witai ga-halaiban worakto r . . .*

"I, Wiwaz, wrought [runes] in memory of Wodurid, my [wise] husband."

Observe that the second line is read *boustrophedon-wise*, and the letters face the wrong way; also that *i, g, a* are bound together, as also *h, a*. Similarly, the three lines on the second side must be read *boustrophedon-wise*, and the third line is upside-down with respect to the other two. These three lines are thus read by Dr. Vigfusson (9):—

* *R.M.*, vol. i, p. 247; *H.*, p. 56.

Arbijas ijos tez-arbijand
Thrijoz dohtriz dalidun
. . . woduride staina;

and may thus be translated :—

“Heiresses, they divide the inheritance;
 Three daughters shared
 . . . monument to Wodurid.”

The Rune which Dr. Vigfusson reads as *j* is the one which has caused differences of interpretation. The Scandinavian philologists read it as *ng*; but Dr. Vigfusson's reading is supported by the Vadstena bracteate. The last letter of the first line on the second side, which Dr. Vigfusson reads *d*, appears in Dr. Stephens's engraving as *o*; the first line has a bind-rune, *s*, *i*, and the second line one, *d*, *a*.

In the middle of the seventeenth century, on the west coast of Denmark, near the boundary line between Jutland and Schleswig, was dug out of the ground a golden horn.* And a century afterwards, at the same spot, a second one. Each weighed about eight pounds. They are known as the Gallehuus Horns, and were covered with a great number of fantastically-shaped figures, and one of the two bore Runes. More priceless relics of ancient Northern heathen art cannot be imagined. But they were stolen at the beginning of this century by some wretch for the sake of the gold (about £900 sterling), and found their way to the melting-pot. Fortunately, drawings had been made of them, so that they could be reproduced, and there are copies of them now in the Copenhagen Museum, made of silver-gilt.

The fantastic figures are interpreted variously. On the first horn we are supposed to have scenes of life as it is, or will be, in the nethermost regions, “where their

* *R.M.*, vol i, pp. 322-325; *H.*, pp. 85-89.

worm dieth not." There is an abundance of snakes, certainly, and we know from other sources that vipers were a characteristic of the Northman's hell. The centaur which is figured on both horns seems to show an acquaintance with Greek legends. On the second horn the scenes are supposed to represent life in Walhalla; the Heaven above where brave warriors after death await Odin's summons to the final conflict with Evil. Observe the stars, showing that Walhalla is in the heavens, and the three-headed Giant. Hunting and games seem to be the chief occupations.

These two horns probably adorned some famous temple of the olden time. They may have been votive offerings to be held by the images of the gods in their hands or arms, signifying that the gods liked good ale. The Greek gods did not condescend to touch human drinks, they drank *nectar*, which mortals might not share. But in one of the Eddic poems, as the Northern gods are at the board, feasting, one of their number comes up to the hall, and seeing the cook, calls out :

"Tell me, cook, before another step thou take,
What speech do hold the Blessed Gods over their ale."

The Runes (10) may be read—

echlewagastiz holtingaz horna tawido,

and thus translated :—

"I, Hlewa-gastiz of the Holt, made the horn."

By far the most interesting Runic remains found in our island are Christian, and the most remarkable of them are the ornamental crosses set up in Christian churches or churchyards. They are found chiefly in that part of England and Scotland which formed the ancient kingdom of Northumbria. This kingdom, founded by the Angles, is regarded as probably the most powerful of the kingdoms of the Heptarchy in the seventh century

and the first part of the eighth. It was first made Christian by Paulinus, and after Penda, King of Mercia, again heathenised it, the Irish Church undertook the work of re-conversion. With Irish Christianity came Irish art, and the ancient Christian crosses are noble specimens of the work which the commingling of Irish and Roman art produced in those early days.

About twenty miles to the north-east of Carlisle is situate the village of Bewcastle, in a wild mountainous district adjacent to the Cheviot range. In the churchyard of the village stands an ancient cross.* Its present height, above the pedestal, is $14\frac{1}{2}$ feet, and the top is broken off.

The artistic work should be noticed. In the scrolls of wreathed vine, through which birds and squirrels play, art critics are reminded of similar work in Lombardic sculptures. The knot-work ornament and the chequers are more particularly Keltic. The upper figure represents St. John the Baptist holding a lamb in his arms. The next lower figure represents our Saviour holding the sacred roll of the Law in His left hand, His right being uplifted to bless. He stands having each foot on the head of some animal, showing that He is Lord of all Nature. The lower figure represents St. John the Evangelist, and the bird is the eagle, sacred to him. Between the second and third figures there is a long inscription in Runes, and on other parts of the cross several smaller ones; but the characters, particularly of the longer inscription, are much worn and very indistinct. A portion, containing the name of Alcfrith, is shown in (11), as it appeared fifty years since to the first investigators; and the same portion in (12), as it has been restored by Dr. Stephens:—

aft ælcfrithu ean künig eák oswiung

“after Alcfrith a king and son of Oswy.”

* *R.M.*, vol. i, p. 399; *H.*, p. 129.

Although Dr. Stephen's restoration of the letters is impugned, others who have followed him agree with him, from their own reading of the Runes, that the cross is a monument to King Alcfrith, son of Oswy. In the smaller inscriptions may be read, perhaps a little more confidently, the names of Ecgfrith, Wulfhere king of the Mercians, Cyniswitha, Cyniburug. These are all known personages of the Northumbrian and Mercian royal families of the seventh century, as may be seen in *Bede's Ecclesiastical History*, book iii, c. 21-24. Mistakes doubtless occur in the reading of particular words or lines of this inscription, but the interpretation which makes this Bewcastle cross a monument raised to the memory of King Alcfrith by his surviving relatives, can scarcely be altogether a freak of the imagination. Also, the cross must have been contemporary, or nearly so, with those whose names it bears, and not raised three or four hundred years after they were all dead. When a monument is raised to a man's memory three hundred years after he died, it is not likely to display the names of his father, brother, mother-in-law, wife, and brother-in-law. Consider, moreover, what befel Northumbria. The kingdom was at the height of its greatness under Ecgfrith, but it received a fatal blow to its supremacy when he fell against the Picts on the moorlands of Nectansmere in A.D. 684. Before A.D. 800 the Danes had appeared, and in the midst of their heathen ravages and plunderings, and the conquest of the kingdom by the sons of Ragnar Lodbrok, all memory of Oswy and his family would disappear. If any were remembered it would rather have been Ecgfrith than Alcfrith. Thus, if the Runes have been rightly read, we seem to have in the Bewcastle cross a relic of old Northumbrian times, to which we may fix a date not later than A.D. 700. I shall

return again to this point after examining the Ruthwell cross.

By far the grandest of Runic remains in the world* may be seen at Ruthwell, a village on the north or Scotch side of the Solway Frith. It stood in the parish church of Ruthwell at the beginning of the sixteenth century, but how long it had been there is not known. When the Scotch Church was in process of being purged in 1642, the General Assembly sent down orders from St. Andrews that the cross should be destroyed as a relic of Popery tending to image worship, but the orders were only partially carried out. It was thrown down and broken, and remained for a time in the church, portions of it being used for seats. One part at least was buried in the church. The broken pieces thence passed into the churchyard, and there remained until an antiquarian, and therefore enlightened, minister, the Rev. Henry Duncan, at the beginning of the present century had them set up in the original shape in the manse garden, with as few repairs as possible. In 1887 the cross was removed to an apse adjoining the church, and now stands about 17 feet high. Two sides are occupied by sculptured panels, surrounded by explanatory legends in Latin, written in Roman characters, some very distinct, others indistinct. The uppermost on one side represents St. John the Baptist holding a lamb in his arms, as in the Bewcastle cross. The next panel represents our Lord having in His left hand the sacred roll of the Law, and lifting up His right hand to bless. He stands on the heads of two animals, as in the Bewcastle cross. The next panel is the meeting of St. Anthony with St. Paul the Theban in the desert, and this is followed by the flight of the Holy Family into Egypt. On the top of the second Roman side the legend

* *R. M.*, vol. i, p. 405; *H.*, p. 130.

is very indistinct, but seems to be "*In principio verbum.*" As these words are the beginning of St. John's Gospel, the half-obliterated figures will probably be St. John the Evangelist and the Eagle, as in the Bewcastle cross. The next panel may be the meeting of Mary and Elizabeth, but the legend is defaced. This is followed by the washing of the feet of our Lord by Mary Magdalene, and after this come the healing of the man blind from his birth, the Annunciation, and the Crucifixion.

On the two Runic sides of the cross are carved scrolls of vine wreath, through the branches of which birds and animals play, as on the Bewcastle cross. The Runic inscription on these sides must have contained about four hundred characters, but many of them are now obliterated and many indistinct. Fifty-five years ago our great Anglo-Saxon scholar, Kemble, deciphered them, and showed that they formed part of a poem on the Holy Rood, the Cross of Christ, written in the old Northumbrian dialect. Two years later he was looking over some half-dozen poems in the West Saxon dialect, edited by Benjamin Thorpe for the Record Office from a MS. found at Vercelli, in Italy, and came upon the whole poem of which, in the Northumbrian dialect, he had read ten lines on the Ruthwell cross. Another learned Englishman, Haigh, at once claimed the poem as a lost work of the Northumbrian poet Cædmon. And lastly, thirty years ago, Dr. Stephens read the name of Cædmon in some nearly-effaced Runes on the top of the cross. All this looks very clear, but it must be said that Mr. Haigh's brilliant guess is impugned by the latest Anglo-Saxon scholars, who ascribe the "*Dream of the Rood*" to Cynewulf, a century later than Cædmon. Also, that the Runes containing the name of Cædmon are so indistinct that only the man who wishes to see them can find them.

New Runic forms for *k* and *g* appear on this cross, and probably, also, on the Bewcastle one. But in general, the shapes of the letters are the same as those on the Thames sword, except that in *s* the Ruthwell cross follows the Vadstena bracteate. It is important to notice that the vowel system of the Ruthwell cross is the same as that of the Thames sword, and of the Franks casket, which will be next described. The fourth letter on the Thames sword, a character not found, I believe, in old Scandinavian inscriptions, can only have the sound of long *o* in the Anglian ones. The twenty-fourth letter on the Thames sword (the "Omega" character), which is *o* on the Tune Stone and the Gallehuus Horn, has the sound in the Anglian relics of *é*, or possibly of *œ*. Also, the Anglian Runes distinguish between long *a* and short *a*.

In investigating the inscription on the Ruthwell cross, Cynewulf's "Dream of the Rood" affords valuable help. By its means many of the half-effaced Runes can be read more confidently than those on the Bewcastle cross. The main part of the inscription is as follows (13):—

gereda hina God álmeeottig thá he

wolde on gálgu gistiga

modig fore . . . men

. ik riikna guningk

heafunas hláford, halda ik ni dorsta

bismaradu unget . . .

. Krist was on rodi

hwethra ther fusa fearrán kwomu

aththla til ánum . . .

. . ik was mith sorgum gidréf . . . mith strelum giwundad

álegdun hia hina limwérigna, gistóldun him.

The Runes may be thus translated, the cross being supposed to speak:—

"God Almighty prepared Himself when He was eager

to ascend the Cross for men. I [bore] the mighty King, Lord of Heaven, I durst not bend. [Men] blasphemed us both. Christ hung on the Rood, and [men] gathered eagerly from afar around Him, the Prince. With sorrows I was afflicted, with arrows wounded. They laid Him down, the limb-wearied one, and stood around Him."

Cynewulf's "Dream of the Rood" will be found in Sweet's *Anglo-Saxon Reader*, and the above passage, much enlarged, is on p. 171 of the first edition. There is no reason why the inscription on the cross should not be earlier in point of date than the poems of Cynewulf.

And now comes the question of the date of this remarkable cross. If it is not contemporary with the Bewcastle cross, can we place it more than a generation or two afterwards? The whole system and manner of ornamentation forbids us. But when we suggest, in virtue of the interpretation of the Runes on the Bewcastle cross, that the date cannot be later than the first half of the eighth century, the art critics interpose their veto. The following is extracted from an excellent work, dated 1887, by Margaret Stokes, on *Early Christian Art in Ireland*, pp. 125, 126:—

"As eleventh century monuments these crosses of Ruthwell and Bewcastle fall naturally into their place in the development of the arts of sculpture and design during this period, while as seventh century monuments they are abnormal and exceptional. The sculptor of the Ruthwell cross has clearly followed the *Byzantine Guide* in his work; and the *Byzantine Guide* was compiled in Greece at Mount Athos, from the works of Panselinos, a painter of the eleventh century, and became the text book of Byzantine Art."

Attention has already been drawn to the resemblance between the Runes of the Franks casket and those of the

(14) FFFFNXXMX

RFMPFFINLYFXWRMNMPPFINHTPQXMX

XIBRFPPFR

FFQMMFHIFFDGFIFXRFFMFIFHTRI

(15) HMRFMXTFF

TITNLYMXINLMFYH HICFUGICANTHIERUYCLIM

FFITFTFRMH

MM

XIHT

MXI

(16) HRFXFHBFX

FIFHFIFMN FHFFFXFMRX

(MXBMRIX)

MFYINIXTMMRXHXMMHRYQXRYQXJINRYXQRYQX

(17) FXINI

Ruthwell cross. What say the art critics concerning the Franks casket? In the *South Kensington Manual on Ivories* (in a copy dated 1876) the Franks casket is judged to be a work of the eighth century. But no Runologist would consider the Runes on the casket to be three centuries earlier than those on the Ruthwell cross; on the contrary, he would probably declare those on the cross to be the older. It seems to me, therefore, on the strength of the testimony of art critics themselves touching the Franks casket, that we have good ground for accepting the early date given to the Ruthwell and the Bewcastle crosses, which is founded on the interpretation of the Runes.

The Franks casket* was purchased in Paris by the gentleman whose name it bears, and presented to the British Museum. It is a very precious relic of ancient English, possibly Northumbrian art, and, as we have seen, dates probably from the eighth century. On its first side is a carving of the legend about Romulus and Remus, and the Runes (14) may thus be read:—

*Othla unneg Romwálus ánd Reunwálus twégen gibrothar
álfédda hia wúlif in Romakastri.*

“Far from their heritage Romulus and Remus two brothers. A she-wolf fed them in Romacaster.”

The scene represented on the central portion of the second side is the taking of Jerusalem; and the legend is a mixture of Runes and Roman letters, which reads thus (15):—

*her fegþáth titus end giutheásu, hic fugiant hierusalim
aþitadores.*

“Here fight Titus and the Jews: here the inhabitants flee Jerusalem.”

Observe the Runic *s* in Hierusalim; the same form that we met with on the Thames sword; also the ungram-

* *R. M.*, vol. i., pp. 471–475; *H.*, pp. 142–147.

matical Latin, and the letter *f* for *b* in the word *habitatores*. One of the lower panels represents a judgment scene, with a prisoner led off to execution. The word in the corner is *Dom*, judgment. On the other is the word *gisl*, a hostage, and the scene thus probably represents the sending of hostages to Titus.

On one panel of the third side the word *Magi* describes the story of the wise men from the East. To the other panel there are no explanatory Runes, and the scene is supposed to represent the beheading of John the Baptist. The female figures are Herodias and her daughter; the other figure may represent the cook with the birds for Herod's feast. The Runes (16) round the margin of this side commemorate the capture of the whale whose bones or tusks furnished the material of the casket. They read:—

hronas bân fisk flodu áhof on ferg(enberig)*
wárh gásrík grorn thar he on greut giswom.

The characters on the lower line being reversed. They may be translated, though not with certainty, thus:—

“Whale's bone. A flood-tide raised the fish on Fergeng-bury;

There came to goose-back grief where he on shingle swam.”

The fourth side of the casket is lost. On the top of the casket the single word (17) *Agili*, shows that the carving represents a scene in the life of Egil, the typical archer of the Northern Mythology. He seems to be here defending Odin, who is seated on his throne in Walhalla, against an attack of the Frost Giants. Observe the beaks of Odin's ravens, and the heads of two of his wolves.

The Middle Runes of Scandinavia may be considered as following in point of date the Runes of the Ruthwell cross and the Franks casket. As an example of the transi-

tion period may be given those on a memorial stone found at Snoldelev, in Zealand (18).^{*} They read thus, *s* in the first word being repeated :—

kunuelststein sunar

ruhalts thular osalhauku(m).

“Memorial stone of Gunweld, son of Roald, speaker at the Salhowes” (place of Assembly).

Of old forms there are the *h* and the final *z*, here the Norse *r*, with the arms turned downwards. The fourth letter of the Vadstena Futhork, which on the Tune stone had the power of *a*, has here, perhaps, the sound of *au*, on its progress to *o* in the later Scandinavian Futhork. The late *a* is here used, and the late *h*, but the latter has not yet the power of *h*, but represents some vowel, probably *e*. The stone belongs to heathen times as appears from the two sacred marks on it, the Swastika and Triskele, formed of three horns. The word *thular* is interesting on account of its rarity in Northern literature. It is probably the same word as the Anglo-Saxon *thyle*, an orator.

A very famous stone is the Rökstone of East Sweden.[†] It is a huge four-sided block, raised by a father in memory of a dead son, and is covered with Runes nearly eight hundred in number. It was fully deciphered by Professor Sophus Bugge. Among other quaint characters on it, there are “twig Runes,” meant originally perhaps as a form of secret writing. If we take the later Scandinavian Futhork, in which *f*'s family consists of six letters, *h*'s family of five, and *t*'s family of five, a letter may be designated by two figures, one denoting the family to which it belongs, and the other its place in the family. In the twig Runes on the Rökstone, the families are taken in the order *t*, *h*, *f*. Each twig or upright pole represents a

^{*} *R. M.*, vol. i, p. 345; *H.*, p. 102.

[†] *R. M.*, vol. iii, pp. 41-60; *H.*, pp. 32-40.

letter, the number of branches of the pole on the one side represents the family, and on the other side the number of the letter in the family. Thus the twig Runes (19) on the Rökstone read—*inibrfluoi*, if the branches at the top be supposed to represent the letter, and those at the bottom the family.

As an example of the later Futhork may be taken the inscription engraved on a slab set up in the Church yard wall of Glimminge, Skaney, Sweden.* Our old Northern forefathers, from time immemorial, practised the custom of burying treasures with their dead; doubtless such treasures were objects which had been cherished by the dead when living. Probably the custom was universal in prehistoric times; and no doubt the grave-mounds were for long ages inviolate, because men dreaded the power that ghosts had of avenging themselves. There are stories of conflicts with ghosts in the Sagas, of which, perhaps, the most fearful is that of Grettir the Strong with Glam—a story the echo of that which describes Beowulf's conflict with Grendel in the Anglo-Saxon poem *Beowulf*. But fear of the dead died out in the time of the reckless Wickings, and the old grave-mounds were all ransacked and robbed of their buried treasures. To this practice the inscription on the Glimminge Stone refers (20).

*Swini sati stin thasi iftir tusta hin skarba fauthur
sin hartha kuthan bu[n]ta virthi at rata luas ubbriuti.*

"Swini raised this stone after Tosti the Bold, his father, a fine good yeoman. May he become an ogre who shall break open the mound."

The imprecation recalls that over Shakspeare's grave in Stratford Church—

"And curst be he that moves my bones."

* *R. M.*, vol. ii, p. 702; vol. iii, p. 305.

The *Runes* are all from the later Futhork, together with the final *r*, which was met with on the Snoldelev stone.

There are few Runes in England of native origin after the time of the great crosses and the Franks casket. Objects are occasionally found marked with Scandinavian Runes, but these are remnants of the Danish invasions. The memory of Runes lingered, however, in the north of England, and attempts were occasionally made to use them. One such is seen on the font of Bridekirk Church,* in Cumberland. The Runes may be read (21) :—

Rikard he me iurokte, and to this merth gerur me brokte.

“Richard wrought me, and to this delight carefully brought me.”

Bind-runes are used for *me* and *te*. But the special characteristic of this inscription is the remarkable mixture of forms. We find the Anglo-Saxon character for *w*, the contraction for *and*, the Irish and Old English character for spirant *g*, and non-Runic characters for *d* and voiced *th*. Forms taken from the later Scandinavian Futhork are *h*, *m*, *k*, *a*, *s*; and the *e* is very like an imitation of the Scandinavian dotted *i*. The character for *o*, likewise (the Anglian *a*), is probably taken from the Scandinavian inscriptions, where it is a common variant of the ordinary form of *o*. This mingling of characters of different origin seems to show that such Runes as those on the Franks casket had long since passed out of use, if they were not quite forgotten. The Bridekirk font dates, in all probability, from the twelfth century, so that if the art critics are correct in their judgment as to the date of the Ruthwell cross, only one century separates the Runic characters on the two objects! It can scarcely be deemed an improbable supposition that the later Runes of the north of

* *R. M.*, vol. i, p. 489; *H.*, p. 160.

England were due to Scandinavian influence, possibly from the Isle of Man, when men had lost the ability to read easily the Runes on the Bewcastle and Ruthwell crosses. Thus they can only be regarded in a very imperfect sense as the lineal descendants of the Anglian Runes.

Scandinavian Runes are found in the Isle of Man * on churchyard crosses, some of which are remarkable for the beauty of their ornament. The chain-cable work which distinguishes the Kirk Michael cross is but rarely seen except in the Isle of Man; it is probably of Keltic inspiration. The Runes on this cross, read by the late Dr. Vigfusson, are these (22):—

*mal brikti sunr athakans smith raisti krus thano fur
salu sina sin brukuin k.ut kirthi thano auk ala imaun.*

“Malbrikti the smith, son of Athakan, raised this cross for his own soul. His surety-friend Gout worked it and all in Man.”

These Runes, with slightly variant forms for *a*, *t*, *u*, belong to the later Futhork, but the *o* of the Futhork has here the power of *b*, a use of the character excessively rare except in the Isle of Man. Having selected this form for his *b*, the artist, as may be seen in the word *thano*, when he had to represent an *o* sound, took the same Scandinavian variant of *o* that is found on the Bridekirk font. Other readers of this inscription say that the first word should be *mail*, or *mael*, and that the doubtful letter in *Gout* is *u*, not *o*.

The photographs which illustrated this lecture were taken almost entirely from the engravings in Dr. Stephens's great work on *Runic Monuments*. This book reminds the reader of the dictum of a great northern

* *R. M.*, vol. ii, p. 597.

scholar upon Runes: "Much valuable time and real talent has been spent over a field that has hitherto yielded a poor result, and shows little prospect of a better harvest." But surely no knowledge should be despised because it seems to be useless. The ancient Greek geometers spent much time and devoted infinite pains to the investigation of the properties of the conic sections—knowledge perfectly useless until, centuries afterwards, Newton proved that the earth described an ellipse round the sun as a focus. Instantly, the knowledge accumulated by the Greek geometers was available for astronomical science. The Runes may yet help to throw light on some doubtful problem of Teutonic philology.

Dr. Stephens died last year at a good old age, having held the Professorship of English Language and Literature at the University of Copenhagen for over forty years. We in Liverpool should feel a close interest in him, for he was born in the town, the son of a Wesleyan Minister. As a scholar of simple life, always ready to share his knowledge with others, he will live in the affection of many surviving friends. Others have cause to remember him as a doughty controversialist, whose blows in argument were none of the lightest. But all must admire the singleness of purpose with which he set himself to the problem of reading Runes, and the patience and perseverance which he devoted to the task.

JOHN DRYDEN.

BY R. H. CASE, B.A.

IN what I have to say about Dryden I shall not trouble you much with his shortcomings. They have had a lion's share of criticism during the last century; and perhaps a better excuse still, is that half his excellencies must likewise go unmentioned. It is because he is least known as a dramatist that I speak proportionately at large of his plays. They are not his greatest work, considered in their entirety, for he was driven to the stage by his necessities rather than by choice or aptitude; but, in them, he is frequently at his best as a poet; nor is their usual hasty dismissal in a sentence containing a nice assortment of adjectives such as *indecent*, *profane*, *ill-constructed*, *ranting*, and so forth, anything but the voice of those who are too careless or too unjust to report good as well as evil.

The so-called classical school of Dryden and Pope was overthrown, at the close of last century, by what is called the Romantic Revival. If, then, we sympathise with what was effected in that revival, first by its pioneers and afterwards by Burns and Cowper, by Wordsworth and Coleridge (as, indeed, we are bound to do), can we also sympathise with the earlier change in the contrary direction, from Romantic to Classical, from Elizabethan to Restoration literature,—the change in which Dryden was concerned, and which Wordsworth and the rest ultimately reversed? It is manifest that such sympathy would be, and actually was, impossible to the generations which first

reaped the full benefit of the reversal, the benefit of a return to natural expression from art which had become artificiality, from conventionalised nature to nature herself, and from the study of manners to that of the heart and affections,—in short, a return from errors which were simply the original order and restraint of the classical school pushed beyond all reasonable bounds. But the prime of that school was very different from its dotage: and now, at this distance of time, we can surely recognise that the first change was as inevitable as the one I have just described, and that, as Mr. Gosse puts it, “the classic movement supplied that basis of style in prose and verse upon which all more recent literature has been elevated.”

We may well give our suffrages in favour of the Romantic literature of the age of Elizabeth; but when, in the years before the Civil War, its vitality had ebbed, and its faults and exaggerations were left in strong relief, one cannot wonder that men craved for commonsense instead of imagination run wild, and as regards the language of poetry, for some precise diction instead of the license into which the glorious flexibility of Elizabethan verse had degenerated. It was a revolt, then, to restraint and commonsense in matter, to elegance and sobriety of diction in imitation of the Latin poets, and to a more regular type of verse, that was mainly begun by Edmund Waller in the earlier years of Charles the First, and long afterwards endorsed and dignified by Dryden with all the force of a great and masculine genius; and the issue of it was the so-called Classical school of English poetry.

We might have had quite another tale to tell but for the fatality that attended that virile band of writers, the poetic sons of Ben Jonson—had Randolph lived, for instance; or, again, had not the nobler classicism of Milton been silenced for nearly twenty years during the

war and Commonwealth. In Milton's old age, Dryden became his first and greatest panegyrist, nor did he fail to benefit by his unbounded admiration for *Paradise Lost*. But suppose that Dryden, born twenty-three years after Milton, had found the influence of such a poet predominant in his early manhood! The inference needs no statement. Both poets began as novices in the school of Donne and Cowley, the school of fantastic conceits and far-fetched comparisons; but by long years of retirement and quiet study at his father's house at Horton, Milton worked out his own salvation in poetry years before the political troubles interrupted his pursuits. Dryden (when they were all at an end), situated in the entirely different atmosphere of the town, and fighting for position in the profession of letters, at last found solid ground in the new prosody of Waller; and in a series of heroic plays gradually gave to that verse a vigour and majesty, from which Pope was obliged to detract in order to supply additional correctness and polish. Pope, indeed, sublimed criticism into fine poetry when he spoke thus of Dryden's verse:

Waller was smooth: but Dryden taught to join
The varying verse, the full resounding line,
The long majestic march, and energy divine.

but he somewhat injured the majesty thus celebrated. Pope and his followers became slaves to the heroic couplet, the reformed verse of Waller, in which the sense and line are coterminous, as contrasted with Elizabethan and modern ten-syllabled verse, in which the stops occur as often in the middle as at the end of a line. They scarcely wrote anything else; but not the least of Dryden's claims is his mastery of blank verse, and his command of metres as a lyric poet; and even his heroic verse has a variety of cadence unknown to later developments. Not infre-

quently, he employs the older method, to avoid monotony or to heighten effect, as in those faultless lines which open the "Hind and Panther," and in which he allegorically describes the Church of Rome. In these lines we observe the new prosody, with its decisive end-stopped movement and antithetical balance in the four opening lines,—and then the sudden change to the beautiful and flowing verse which emphasises the pathetic images of those that follow :

A milk-white hind, immortal and unchanged,
Fed on the lawns, and in the forest ranged :
Without, unspotted ; innocent within,
She feared no danger, for she knew no sin :
Yet had she oft been chased with horns and hounds,
And Scythian shafts ; and many winged wounds
Aimed at her heart : was often forced to fly
And doomed to death, though fated not to die.

Before considering the rhymed heroic plays, a few facts will serve to remind us of the course of Dryden's life, which covered the years between 1631 and 1700, from eleven years before the Civil War down to the last two years of William III, that is to say, from fifteen years after the death of Shakspeare to the twelfth year of Pope. The grandson of a Northamptonshire baronet, he came of a puritan race on both sides, and could command considerable family influence before the Restoration : but that event put an end to all hopes of advancement from this source, and, like everybody else, he was glad to hail the coming of Charles the Second in adulatory strains. Who can wonder, after the miserable period of self-seeking and anarchy that followed Cromwell's death in 1658 ! He gradually made his way as a dramatist, and obtained the favour of the court ; he married Lady Elizabeth Howard, daughter of the Earl of Berkshire, (no very complacent

spouse) in December, 1663, before he had made his mark, and became Laureate, in succession to Sir Wm. D'Avenant, as well as Historiographer Royal, in 1670; but as his emoluments from these offices were always in arrear, and his gains from the theatre precarious, he was never more than temporarily affluent; and after the Revolution, when stripped of his offices as an adherent of James and a Papist, he found himself pitted against straitened resources, as well as obloquy, increasing weight of years, and family anxieties. Then, indeed, if not before, one must give one's heart to Dryden, so nobly did he bear his burdens, putting forth, in these years of stress, much of his best work, and toiling to the very last with a devotion and unselfishness that make us think of his great biographer and panegyrist, Sir Walter Scott. His conversion from Protestantism after the accession of James the Second was put in the worst light by Macaulay, with a somewhat unscrupulous statement as to his supposed reward, that documentary evidence has since disproved. But long before the production of these proofs, which was due to Mr. Robert Bell, Sir Walter Scott had declared strongly in favour of Dryden on the internal evidence of his religious poems, revealing the gradual growth of opinions whose logical issue was Roman Catholicism. I will refer later to passages which appeal to one's best instincts for belief in his disinterestedness in religion and in attachment to the royal house.

Under William the Third, Dryden could never be persuaded to court favour, and sadly disappointed his publisher, Jacob Tonson, by his refusal even to allow the dedication of his *Virgil* to the King. "Tonson," writes Dryden to his son, "has missed of his design in the dedication, though he had prepared the book for it; for in every figure of Æneas, he has caused him to be drawn

like King William, with a hooked nose." Some wag perpetrated an amusing epigram upon this :

Old Jacob, by deep judgment swayed,
To please the wise beholders,
Has placed old Nassau's hook-nosed head
On young Æneas' shoulders.

To make the parallel hold tack,
Methinks there's little lacking ;
One took his father pick-a-back,
And t'other sent his packing.

It is customary to deplore the connection of Dryden with the Stuart court, and politics ; and there has been a great deal of cant about "smirched singing robes," and "courtly poison withering wreaths of bays" (very fine phrases, no doubt) ; but should we like to have lost the most masterly satire the nation has produced, with its vivid portraits of men like Shaftesbury and Buckingham ? We owe to this connection, also, religious and controversial poems, mirroring the opinions of the times and the arguments which appealed to men of either church. Must it always be forgotten that if Milton sought to justify the ways of God to man, Dryden also strove for the same end : for what else is to justify fundamental doctrine ? So, too, he battled as honestly in verse as Milton did in prose, for his own party, and suffers too much, at the hands of his critics, from the application of a pleasing definition of opinion recently quoted to me : "Orthodox is *my* dox, and Heterodox is *your* dox." Since, in his later years, he refused, in noble words, to defend his share in the degradation of the stage, we need not excuse the license of his comedies, save to say that it is quite equalled by that indulged in by poets unattached to the court. There is something else which might be used as a set-off to the worst of them, namely, the tone of the rhyming heroic

plays, which his influence brought into vogue almost at the beginning of his career, and to which the court listened as eagerly as to his comedies. With an eye upon the French stage and what D'Avenant had done before him, he accidentally conceived, as he tells us, the notion of a rhyming play in imitation of a heroic poem, and concerned with the subject of such, that is, Love and Valour; but he leant more and more to the interminable heroic romances in prose fashionable at the time, with their exaggerated personification of these qualities, rather than to heroic poems. Exaggerated or no, however, Dryden is in these plays the priest of virtue, filial piety, fidelity—all heroically maintained in exalted dialogue. He dwells upon and portrays the ennobling power of love; and in *Aurengzebe*, the last rhyming play he wrote, the following severe satire upon the sex, perhaps the severest existing, is compensated by its being mistakenly addressed to a miracle of serene virtue and fidelity:—

Ah traitress! Ah ingrate! Ah faithless mind!
 Ah sex, invented first to damn mankind!
 Nature took care to dress you up for sin;
 Adorned without; unfinished left, within.
 Hence by no judgment you your loves direct;
 Talk much, ne'er think, and still the wrong affect.
 So much self-love in your composure's mixed,
 That love to others still remains unfixed:
 Greatness, and noise, and show, are your delight,
 Yet wise men love you in their own despite!
 And finding in their native wit no ease,
 Are forced to put your folly on to please.

I do not for a moment assert that a heroic play is in itself a desirable form either of literature or acting drama, but in its own day it had its value in putting an end to the wretched travesty of prose into which the blank verse of the stage had gradually passed, and which was never

afterwards revived. It had its merits, moreover, though to do them justice is now-a-days about as difficult a task as a reader can set himself.

The critical remarks of Sir Walter Scott, in his edition of *Dryden*, convince me that this difficulty of appreciating the heroic play has much increased since his day, chiefly, perhaps, because we are now much more witched with the harmony and freedom of Elizabethan blank verse and the rhyming verse of the Elizabethans and moderns who imitate them. We cannot away with that termination of the sense with each couplet. A reason which strongly affects myself is that the serious parts of pantomime are still written in rhymed couplets, causing a resemblance sometimes irresistible. I remember hearing the Emperor of China thus apostrophized in a Liverpool pantomime :

Son of the moon, offspring of constellations,
Joy of the stars, and glory of the nations!

And who could help being reminded of the lines by a passage like this, in Dryden :

Son of the sun, my fetters cannot be
But glories for me, since put on by thee.

or this :

Monarch of empires, and deserving more
Than the sun sees upon your western shore.

The result of that resemblance to the heroic romances, of which I have spoken, is that every quality typified by the characters of these plays is strained to the utmost, nay, sometimes monstrously exaggerated. This is especially the case with valour and power, and the result is frequently bombast perilously like the rhodomontade of pantomime potentates. The opening of the excellent farce of *Bombastes Furioso* * is quite a mild satire on such depositaries of uncontrolled authority. Thus it is :

* By W. B. Rhodes, and produced in 1790.

Chorus of Tailors. What will your majesty please to wear?

Black, blue, grey, or white, or brown?

What will your majesty please to wear?

King. Get out of my way, or I'll knock you down.

As to the heroes, the valour of Almanzor, in *The Conquest of Granada*, a play in two parts produced by Dryden about 1670, is only equalled by his temper, the irritability of which makes him change sides about twice in every act. Hence, as he is as irresistible as Achilles, the victors of to-day are the vanquished of to-morrow, but victorious again the next day. Almanzor, and Zulema, a powerful Moor, have quarrelled. Says Hamet to Almanzor :

Your slighting Zulema, this very hour,

Will take ten thousand subjects from your power.

Almanzor. What are ten thousand subjects such as they!

If I am scorned—I'll take myself away.

As the quarrel heightens, he does take himself away, and presently informs the opposite party :

So while my loved revenge is full and high,

I'll give you back your kingdom by the bye.

At an earlier stage, when the Spanish general declared :

My king his hope from heaven's assistance draws,

this towering boaster positively replied :

The Moors have heaven and me to assist their cause.

But in spite of these merciless quotations (and it is fair to say that the author afterwards wished many such in the fire), both parts of *The Conquest of Granada* abound with fine passages and just sentiments. Picturesque images arrest the attention, and the rapid and constantly changing action, no less than the "energy divine" of Dryden's verse, which booms and clangs like a great bell, must have fascinated eyes and ears. Dryden, though he wants not a noble intellectual pathos, is not what is called a pathetic

writer, and in *these* plays, at all events, the prevailing force is argumentative rhetoric. He does not here imbue himself with passion, and speak it through his characters. He explains passion rather than expresses it; lovers pursue acute discussions about their feelings and the courses they should respectively follow; and, in proportion as they love, are convinced and re-convinced with amazing facility. I am not able to exemplify this, having space only for a few brief quotations to show the truth and beauty, often the nobility, of his thought; as this:

True, they have pardoned me: but do they know
 What folly 'tis to trust a pardoned foe?
 A blush remains in a forgiven face;
 It wears the silent tokens of disgrace.
 Forgiveness to the injured does belong;
 But they ne'er pardon who have done the wrong.

Or this:

That friendship, which from withered love does shoot
 Like the faint herbage on a rock, wants root.
 Love is a tender amity, refined:
 Grafted on friendship, it exalts the kind.
 But when the graft no longer does remain,
 The dull stock lives, but never bears again.

And lastly:

But though our penitence a virtue be,
 Mean souls alone repent in misery;
 The brave own faults when good success is given,
 For then they come on equal terms to heaven.

These are from *The Conquest of Granada*: so, too, the following beautiful dialogue on constancy. The hero, Almanzor, is proof against the persuasions of Lyndaraxa, who would have him forsake his unprosperous love, and seek consolation from her:—

Almanzor. Love is that madness which all lovers have,
 But yet 'tis sweet and pleasing so to rave:

'Tis an enchantment, where the reason's bound,
 But Paradise is in the enchanted ground:
 A palace, void of envy, cares, and strife,
 Where gentle hours delude so much of life.
 To take those charms away and set me free,
 Is but to send me into misery;
 And prudence, of whose cure so much you boast,
 Restores those pains, which that sweet folly lost.

Lyndaraza. I would not, like philosophers, remove,
 But show you a more pleasing shape of love.
 You a sad sullen froward love did see;
 I'll show him kind and full of gaiety.

In short, Almanzor, it shall be my care
 To show you love; for you but saw despair.

Almanzor. I, in the shape of Love, despair did see;
 You, in his shape, would show inconstancy.

Lyndaraza. There's no such thing as constancy you call;
 Faith ties not hearts; 'tis inclination all.
 Some wit deformed, or beauty much decayed,
 First constancy in love a virtue made.
 From friendship they that landmark did remove,
 And falsely placed it on the bounds of love.
 Let the effects of change be only tried,
 Court me in jest, and call me Almahide—
 But this is only counsel I impart,
 For I perhaps should not receive your heart.

Almanzor. Fair though you are
 As summer mornings, and your eyes more bright
 Than stars that twinkle in a winter's night;
 Though you have eloquence to warm and move
 Cold age and praying hermits into love;
 Though Almahide with scorn rewards my care,
 Yet than to change, 'tis nobler to despair.
 My love's my soul, and that from fate is free;
 'Tis that unchanged and deathless part of me.

The last of Dryden's rhyming plays was *Aurengzebe*, ushered to the stage by a prologue nobly expressive of consciousness in art and personal aim; indicative of how absurd is the claim of Germany to have taught us what is

due to Shakspeare; indicative, too, of the true position of Dryden, he who was more than half an Elizabethan—a disciple of Shakspeare and Jonson born out of his due time, and “claimed for a space by lesser teachers”:

Our author by experience finds it true;
 'Tis much more hard to please himself than you;
 And out of no feigned modesty to-day,
 Damns his laborious trifle of a play.
 Not that 'tis worse than what before he writ,
 But he has now another taste of wit,
 And to confess a truth, though out of time.
 Grows weary of his long-loved Mistress, Rhyme.
 Passion's too fierce to be in fetters bound,
 And nature flies him like enchanted ground:
 What verse can do, he has performed in this,
 Which he presumes the most correct of his;
But spite of all his pride, a secret shame
Invades his breast at Shakspeare's sacred name:
Awe'd when he hears his god-like Romans rage,
He, in a just despair, would quit the stage;
And to an age less polished, more unskilled,
Does, with disdain, the foremost honours yield.
As with the greater dead he dares not strive,
He would not match his verse with those who live;
Let him retire betwixt two ages cast,
The first of this, and hindmost of the last.

This is the voice of a great poet, and in the character of its personal note (matchable only in Ben Jonson) conveys an impression of pride and candour, and of a kind of kingly anger and pain.

In the Drama then, Dryden himself now led the way to the abandonment of rhyme, and in his customary manner as a monarch in the field of criticism, issued a declaration of indulgence and dispensed with his former opinion in crafty wise: for in prefacing his next play, *All for Love*, a tragedy on the subject of Antony and Cleopatra,

he writes: "In my style I have professed to imitate the divine Shakspeare, which that I might perform more freely, I have discumbered myself from rhyme. *Not that I condemn my former way*, but that this is more proper to my present purpose." This was a change which produced excellent results, for the plays which followed upon it are tragedies stately as ever, but less rhetorical and more passionate: free from exaggeration of character, and expressed in blank verse, severe without monotony, vigorous when vigour is needed, and sweet, too, when gentle images are to be conveyed. To neglect such plays, and yet dote upon the most amorphous examples of Elizabethan tragedy for the sake of a few superlative passages, would be absurd, even if the former could show nothing beyond vigour and correctness. But this is far from being the case, and *All for Love*, the tragedy which I have just named, is simply one of the masterpieces of English drama. Dryden cannot equal Shakspeare, of course, but to have entered into a kind of rivalry with him, and to have reaped honour and not disgrace from the effort, is achievement enough for any poet. Unlike Shakspeare, he concentrates his plot on Alexandria and the last scenes of Antony's life; he shows consummate art in its construction, and brings out in full force that conception of Antony's character which he wished to portray. As Scott says: "Antony is . . . a victim to the omnipotence of love, or rather to the infatuation of one engrossing passion": and Mr. Saintsbury, in re-editing Scott's *Dryden*, continues: "As a dramatic carrying out of its title, as a probable and at least half-historical presentation of sovereign passion, all-controlling, all-justifying, *All for Love* stands alone."

It is not from any paucity of scenes of sustained beauty that I appeal only with brief passages, such as this from

the famous scene between Antony and his old general Ventidius :

Ant. Urge not my shame.

I lost a battle.

Vent. So has Julius done.

Ant. Thou favour'st me, and speak'st not half thou think'st,
For Julius fought it out, and lost it fairly :

But Antony——

Vent. Nay, stop not.

Ant. Antony——

Well thou wilt have it,—like a coward, fled,
Fled while his soldiers fought; fled first, Ventidius;
Thou long'st to curse me, and I give thee leave,
I know thou can'st prepared to rail.

Vent. I did.

Ant. I'll help thee. I have been a man, Ventidius.

Vent. Yes, and a brave one; but——

Ant. I know thy meaning.

But I have lost my reason, have disgraced
The name of soldier with inglorious ease.
In the full vintage of my flowing honours,
Sat still and saw it pressed by other hands,
Fortune came smiling to my youth and wooed it,
And purple greatness met my ripened years.
When first I came to empire I was borne
On tides of people, crowding to my triumphs;
The wish of nations, and the willing world
Received me as its pledge of future peace;
I was so great, so happy, so beloved,
Fate could not ruin me; till I took pains
And worked against my fortune, chid her from me,
And turned her loose; yet still she came again.
My careless days, and my luxurious nights
At length have wearied her, and now she's gone,
Gone, gone, divorced for ever.

We are told that Dryden is merely rhetorical, that he does not touch the heart. I question not that some hearts are absolutely irresponsive to this retrospect of Antony,

this "sorrow's crown of sorrow;" but it is no trick of rhetoric by which the deep emotion of the speaker is revealed in the altered cadence of a single line of simplest words :

I was so great, so happy, so beloved.

That the poet felt as Antony might be supposed to feel is clear ; that he possesses an unusual power of entering into the more masculine griefs and passions, let me convince the still unconvinced by Sir Walter Scott's opinion of the close of Act iv in the later play of *Don Sebastian*, a play which approaches still nearer to Elizabethan tragedy, in containing scenes of prose comedy. Sir Walter's words are : "There is not—no, perhaps not even in Shakspeare—an instance where the chord which the poet designed should vibrate, is more happily struck ; strains there are of a higher mood, but not more correctly true ; in evidence of which we have known those, whom distresses of a gentler nature were unable to move, feel their stubborn feelings roused and melted by the injured pride and deep repentance of Dorax."

Returning to *All for Love*, there is a particularly beautiful scene in which Antony is reunited to his former friend and companion, Dolabella, and reminds the latter how he first beheld Cleopatra, when

Her galley down the silver Cydnos rowed,
The tackling silk, the streamers waved with gold ;
The gentle winds were lodged in purple sails ;
Her nymphs like Nereids round her couch were placed,
Where she, another sea-born Venus, lay.

and the opening of the scene is remarkable for the giant pace of the blank verse and the magnificent imagery of the poetry. I can give but a few lines to stimulate curiosity :

Ant. Thou hast what's left of me;
 For I am now so sunk from what I was,
 Thou find'st me at my lowest water-mark.
 The rivers that ran in and raised my fortunes,
 Are all dried up, or take another course:
*What I have left is from my native spring;
 I've still a heart that swells in scorn of fate,
 And lifts me to my banks.*

Act iii, Sc. 1.

In the first scene of Act iv, occurs the famous line,

Men are but children of a larger growth;

merely the first of a reflective passage of profound truth and beauty.

From these few examples from the twenty-eight plays of our author, I turn to the Satires. Dryden came to the assistance of King Charles in his defence of the principle of hereditary right, and the right of his brother James to the succession therein involved. His parallel of Charles with King David, of Absalom and his counsellors with Monmouth and the Whig agitators, headed by Shaftesbury as Achitophel, came out 17th November, 1681. In this work the poet blends temperate argument with party pleading, personal satire with epic fable. Hitherto, satire had been indiscriminate raving against vice, folly, or knavery, like the satire of Marston; or more temperate and general satire, such as Hall's or Donne's; or again, the microscopic and admirable painting of passing follies, as well as such as are inherent in human nature, which the dramatists, especially Ben Jonson, have left us. But Dryden first as a satirist, if I err not, painted characters with all their lights and shadows. What real praise appears incidentally, and subservient to blame, in the character of Shaftesbury—

A daring pilot in extremity :
 Pleased with the danger when the waves went high,
 He sought the storms.

And again, at the close of the same passage, there is direct testimony to worth—

Yet fame deserved no enemy can grudge ;
 The statesman we abhor, but praise the judge.
 In Israel's courts ne'er sat an Abethdin
 With more discerning eyes, or hands more clean.
 Unbribed, unsought, the wretched to redress ;
 Swift of despatch and easy of access.

Shaftesbury was again attacked in "The Medal," a poem of which King Charles himself suggested and sketched the plan ; and the Whig poets, Settle and Shadwell, in revenge for their scurrilous replies to "Absalom and Achitophel," were inimitably characterised in a second part of that poem, Settle's poetical character beginning thus :

Doeg, though without knowing how or why,
 Made still a blundering kind of melody ;
 Spurred boldly on, and dashed through thick and thin,
 Though sense and nonsense, never out nor in ;
 Free from all meaning, whether good or bad,
 And, in one word, heroically mad.
 He was too warm on picking-work to dwell,
 But fagotted his notions as they fell,
 And if they rhymed and rattled, all was well.

The fat Shadwell comes in for even worse :

Og, from a treason tavern rolling home,
 Round as a globe and liquored every chink,
 Goodly and great he sails behind his link.
 With all this bulk, there's nothing lost in Og ;
 For every inch that is not fool, is rogue.

Poor man ; he had already been crowned as "King of Dullness," in *MacFlecknoe*, and palsied by such lines as :

The rest to some faint meaning make pretence,
But Shadwell never deviates into sense.

We all lend a crowbar now to pluck this excellent comic writer out of his unenviable throne, but he is inextricably fixed. Not "all the water in the rough, rude sea can wash the balm off" Dryden's anointed kings.

The religious poems, the "Religio Laici," written to reconcile the various religious sects to the Church of England as a middle course; and "The Hind and Panther," composed after his conversion to Catholicism, with the design of helping to unite the Roman and English Churches, both breathe a remarkable spirit of charity, and temperance in argument. Their perusal will not lower the reader's opinion of the author, either as a poet or a man; and if Macaulay's particular and unjustifiably intensified iteration of the old charges of venality had not been refuted, these lines from "The Hind and Panther" would incline a generous mind to clear their author. They constitute a passage in which Dryden refuses to continue a controversy with Stillingfleet, if for the sole purpose of justifying his conversion:

Then welcome infamy and public shame,
And last, a long farewell to worldly fame!
'Tis said with ease, but, oh, how hardly tried
By haughty souls to human honour tied!
O sharp convulsing pangs of agonising pride!
Down then, thou rebel, never more to rise!
And what thou didst, and dost, so dearly prize,
That fame, that darling fame, make that thy sacrifice.
'Tis nothing thou hast given, then add thy tears
For a long race of unrepenting years:
'Tis nothing yet, yet all thou hast to give:
Then add those may-be years thou hast to live:
Yet nothing still: then poor and naked come:
Thy father will receive his unthrift home,
And thy blest Saviour's blood discharge the mighty sum.

Let us now have a glimpse of Dryden as "the man" (these are De Quincey's words) "who himself was never equalled on this earth, unless by Chaucer, in the art of fine narration." His last years were spent mainly in translating Virgil, and in various translations from Ovid, the Latin Satirists, and Chaucer. Among other labours, he based three poems upon prose tales of Boccaccio, and as an example of what I conceive to have drawn forth De Quincey's enthusiastic praise, I pursue the theme of "Theodore and Honoria," one of these tales, to which his poetic genius has added circumstances that heighten the natural poetry of the story and its impressive incidents, to a great degree. The love of Theodore, a young nobleman, meets with nothing but scorn from Honoria, till at length he retires in dudgeon to his country seat, and there, walking in the woods one day, meets with a surprising adventure. He beholds a naked and beautiful lady pursued and mangled by savage hounds, urged on by a mounted knight of terrible aspect, who arrests his attempts to intervene by the recital of his story. The knight, an ancestor of Theodore's as appears, had killed himself through unrequited love, and the punishment assigned by Heaven's decree to himself and the cruel dame, was this daily act of pursuer and pursued, slayer and victim.

While listening to the murmuring leaves he stood,
More than a mile immersed within the wood,
At once the wind was laid; the whispering sound
Was dumb; a rising earthquake rocked the ground;
With deeper brown the grove was overspread,
A sudden horror seized his giddy head,
And his ears tinkled and his colour fled.
Nature was in alarm; some danger nigh
Seemed threatened, though unseen to mortal eye.

Unused to fear, he summoned all his soul,
And stood collected in himself and whole:
Not long: for soon a whirlwind rose around,
And from afar he heard a screaming sound,
As of a dame distressed, who cried for aid,
And filled with loud laments the secret shade.

Such are the opening lines of this description; and who will deny their truth and poetry, their power of communicating the sensation of horror which is described? One thinks of Sir Philip Sidney's plea for the true poet: "With a tale, forsooth, he cometh unto you: with a tale which holdeth children from play, and old men from the chimney corner." The tale proceeds in vivid and fascinating narrative; and what I wish to lay stress upon is that he is a great poet indeed who can thus apparently lavish all his powers upon an incident, and then, a few pages later, repeat it with as great, or even greater effect. For what follows? The lover conceives the idea of influencing Honoria by means of this vision, and consequently invites her and many friends to an *al fresco* entertainment upon the very spot of its occurrence:—

Hardly the dame was drawn to this repast,
But yet resolved, because it was the last.
The day was come, the guests invited came,
And with the rest the inexorable dame.
A feast prepared with riotous expense,
Much cost, more care, and more magnificence.
The place ordained was in that haunted grove,
Where the revenging ghost pursued his love:
The tables in a proud pavilion spread,
With flowers below, and tissue overhead.
The rest in rank, Honoria, chief in place,
Was artfully contrived to set her face
To front the thicket, and behold the chace.
The feast was served, the time so well forecast
That just when the dessert and fruits were placed,

The fiend's alarm began; *the hollow sound*
Sung in the leaves, the forest shook around,
 Air blackened, rolled the thunder, groaned the ground.
 Nor long before the loud laments arise
 Of one distressed, and mastiff's mingled cries;
 And first the dame came rushing through the wood,
 And next the famished hounds that sought their food,
 And griped her flanks, and oft essayed their jaws in blood.
 Last came the felon, on the sable steed,
 Armed with his naked sword, and urged his dogs to speed.
 She ran and cried, her flight directly bent
 (A guest unbidden) to the fatal tent,
 The scene of death, and place ordained for punishment.
 Loud was the noise, aghast was every guest,
 The women shrieked, the men forsook the feast;
 The hounds at nearer distance hoarsely bayed,
 The hunter close pursued the visionary maid,
 She rent the heaven with loud laments, imploring aid.
 The gallants, to protect the lady's right,
 Their faulchions brandished at the grisly sprite;
 High on his stirrups he provoked the fight.
 Then on the crowd he cast a furious look,
 And withered all their strength before he strook.

Again the scene of vengeance is described; and let any reader who has the curiosity to refer to and compare both passages in their entirety, ask himself if any effect is lost? On the contrary, the horror of the fact is intensified; it is not only that in the later passage, as partly given above, we have the lady and a goodly company present to provide detail of beauty, and feast, and beings receptive and reflective of impression, but the repeated fact holds our attention as firmly as before, and is rendered even more terrible.

I have not found time to discuss what Dryden did for criticism by his numerous prefaces and essays; and can devote little to his work as the first great master of modern prose—prose, that is, which is lucid, direct, and

Strange cozenage. None would live past years again,
Yet all hope pleasure in what yet remain;
And, from the dregs of life, think to receive,
What the first sprightly running could not give.
I'm tired with waiting for this chemic gold
Which fools us young and beggars us when old.*

But in his strong religious faith, he had that consolation which the preceding laureate and his good friend, Sir William D'Avenant, had expressed in beautiful lines:

O harmless Death! whom still the valiant brave,
The wise expect, the sorrowful invite,
And all the good embrace, who know the grave
A short dark passage to eternal light.

* *Aurengzebe*, iv, 1.

old age a double claim upon us ; yet, for the declining years of Dryden, I challenge as much grandeur as ever clothed the austere puritan whom he worshipped with such unenvious and magnificent praise. "This man," he said, "out-does us all and the ancients too." Well might Lowell say of him : "I can find no trace of jealousy in that large and benignant nature !" Surely before any unjaundiced eyes, the figure of the dethroned laureate moves invested in robes of pathos and dignity. As a man, in the moral sense, and as a poet, his step grows stronger for age and adversity. Stirred to new toils by the additional burden of an invalid son, he wrote to his publishers : "If it please God I die of over-study, I cannot spend my life better than in preserving his." "The easiest and kindest landlord in the world," said the tenant of his small paternal estate. "Of a nature," says Congreve, "exceedingly humane and compassionate, easily forgiving injuries, and capable of a prompt and sincere reconciliation with those who had offended him."

When the end came, he showed the heroic temper which he had so often depicted in his plays, and with something of his former master's wit, declined to live at the cost of an amputation which was necessitated by gangrene in one of his feet. He cared not, he said, to part with one limb to preserve an uncomfortable life upon the rest.

There was indeed little to keep him here, and he might say with one of his own heroes :

When I consider life, 'tis all a cheat,
Yet fooled with hope, men favour the deceit ;
Trust on, and think to-morrow will repay,
To-morrow's falser than the former day ;
Lies worse, and while it says we shall be blest
With some new joys, cuts off what we possess.

Strange cozenage. None would live past years again,
Yet all hope pleasure in what yet remain ;
And, from the dregs of life, think to receive,
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* *Aurengzebe*, iv, 1.

MAP OF
FRANCE & GERMA
showing the Origin of Towns

Chetigny
Bayeux
St. Lo
Coulances
Avranches
Mayenne
Rennes
Nantes
Angers
Chinon
La Rochelle
Poitiers
Saintes
Bordeaux
Bayonne

Loire
Garonne

THIERRY'S FIVE ZONES
of French Municipalities

1. North. Home of the Sworn Commune
2. South. Home of the Consular (Roman) form
3. Central. Administered by a Provost, subject to the ancient customs.
4. West. In Brittany, a Parishal system. In Poiteau, Sworn Communes
5. Eastern. Formerly within the Empire & similar to the German municipalities.

French Municipalities

1. North. Home of the Sworn Communes
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MEDIEVAL TOWNS IN FRANCE AND GERMANY:
THEIR ORIGIN AND MUNICIPAL DEVELOP-
MENT.

By JAMES BIRCHALL.

Civic history as an integral part of the whole record of national life has received but scant attention in England. Mr. Green, the eminent historian, set forth the subject in a brief but vivid sketch in his well-known *History of the English People*, and his widow has recently taken it up in her *Town Life in the Fifteenth Century*. Still, it cannot yet be affirmed that English scholars have given to the study of the origin of municipal institutions, and their influence upon the national progress, an attention commensurate with its importance. This is quite the reverse of what has been done on the Continent. There, jurists and historians have been occupied for years in the prosecution of researches into the fundamental elements of the constitutions of the French medieval Communes and the German Free Cities; and, in the absence of authoritative documents, have indulged in learned and ingenious conjectures as to which primitive popular institution formed the germinal cell from which all the various members of the future municipal organisation were developed.

The results of these speculations and prolonged researches by French and German *savans* are scarcely known in England outside the narrow circle of an interested few. A paper, therefore, in which they are fairly set forth may perhaps modestly claim to possess some

charm of novelty, apart from the unquestioned importance of the subject.

During the first half of the eighteenth century the Abbé Dubos, an able French writer on history and law, held the view that the Roman municipal system survived the barbaric invasions, and that the medieval borough was the offspring of that system. Later on in the century, Bréquigny published his great *Collection of the Ordinances of the Kings of France*, which threw much light upon the condition of the communes, but not upon their origin. For some time the ideas of Dubos lay dormant, but in 1815 they were revived by Savigny, and more or less adopted by Thierry, Guizot, Raynouard, Eichhorn, and others, German as well as French.

These scholars inferred that the mention of *Consuls*, *Curia*, *Senatus*, and other terms of Roman civic polity in the documents then at their disposal, pointed to the continuance of Roman municipal government, certainly in the cities of southern Gaul and Germany, and the Rhineland, where Roman influence was strongest, and most probably in other towns where that influence was feeble. This view was advocated by me in a paper on the *Old English Borough*, published in the 20th volume of our *Proceedings*; and some writers still adhere to it. But the arguments advanced will not bear impartial analysis; the thousands of documents which have been brought to light within recent years do not confirm the assumptions made on the imperfect knowledge of former times, and it is now generally agreed that the usage of Roman titles in the documents cited, is purely artificial, denoting nothing that has any relationship with the institutions of the Lower Empire, or even pertaining to a municipal body. This is the opinion of Professor Flach, whose great work on the *Origins of Ancient France* is now in course of publication.

But the stoutest opponent of the theory is Professor Karl Hegel. He published, in 1847, a *History of the Constitution of Italian Cities*, and followed this up, in 1891, with his *Towns and Gilds of the German Folk in the Middle Ages*, in both of which he effectually disproved the arguments for a Roman origin, and the works in which they were advanced have now no value except as the earliest researches in the formation of feudalism, and the States-General.

That Gaul was a land of towns in the sixth century we know from documents of the time; and the opinion of Guizot that Roman municipal institutions survived in Aquitaine and Languedoc until the eighth century may be probably well founded. But while the forms of these institutions imparted to them an appearance of prolonged existence, their vitality, except in the episcopal cities, had departed through causes which will be noticed presently.

These cities retained some show of municipal life, because the diocese did not disappear with the Empire, and all the business of the episcopal domain, as well as of the diocese, centred round the episcopal palace.

This business was transacted by the bishop's *ministeriales*, who were of various ranks. First came the *milites*, then the *officiales curiæ*, or officers of the court attached to the person; and last, simple *officiales*, or agents who had charge of the rents, dues, and services rendered by the various persons composing the *familia*—copyholders, men-of-the-body, servitors and bondsmen of every rank and degree. According to the views of Wilhelm Arnold, 1854,* one of the most distinguished of German historians, all these officials and dependants were comprehended in the "*Community of the Bishop's*

* *Verfassungsgeschichte der deutschen Freistädte im Anschluss an die Verfassung d. Stadt Worms*. Gotha and Hamburg, 1854.

Manor," or "*Familia of St. Peter*," and alongside them there existed the "*Community of the Old Freemen*," who were independent of the lord, and amenable only to the jurisdiction of the imperial functionary—the Count.

Arnold's researches were confined to Ratisbon and the great episcopal cities on the Rhine. During the eighth century the bishops acquired privileges of immunity for the lands of their churches, and the *familia* not free of these churches then fell entirely under the *Hofrecht*, or manorial jurisdiction of the bishop. They were no longer cognizable by the public authority. In the tenth century these privileges were enlarged by the concession of *Regalian Rights*, which conferred sovereign powers upon the bishops, and transferred to their officers the administration of public justice. The *Old Freemen* were thus brought under the same lord and the same judicial authority as the *familia*, but in their case the episcopal judge, who had superseded the Count, was virtually an imperial functionary, and administered to them imperial and not manorial justice. This change might have endangered the stability of their freedom had not the rule of ecclesiastical lords in those days been exceptionally mild. It so happened, therefore, that instead of the freemen losing ground, the *familia* gained, and the common subordination of both to the same lord established a bond which ultimately removed the differences in their judicial position. So far, Arnold incorporated into his theory the opinion expressed forty years before by Professor Karl Friedrich Eichhorn,* one of the principal authorities on German constitutional law. But he proceeded further to show that when the Church and the Empire contended about Investiture, and the princes, lay and ecclesiastical, sought to make themselves independent, the cities upheld

* *Ueber den Ursprung der städtischen Verfassung in Deutschland*. 1815.

the Emperor, and revolted against their lords. The *Old Freemen* then seized the civic government; a *Rath*, or Council was formed which allied itself with the old episcopal council; an imperial decree sanctioned the usurpation, and the city was released from all further dependence on the lord. The new council then became the sole governing body under the crown; the primitive distinctions of free and unfree disappeared; and whereas the *Old Freemen* were the only burgesses aforetime, now all the inhabitants were burgesses, responsible only to the municipal council.

These ideas of Arnold aroused considerable discussion in Germany, and were at first regarded as authoritative. But in a very few years Karl Wilhelm Nitzsch,* who had been occupied in similar studies, propounded a contrary theory, 1859. While Arnold had been examining the judicial conditions of society, Nitzsch had devoted his attention to its social conditions, and he drew the conclusion that the burgesses arose out of that lowest group of *ministeriales* before mentioned, which exercised administrative authority over the *familia*, and attended to the immediate interests of the town.

The distinctive difference between the two theories thus lay in the point that, while Arnold traced his burgesses to the *Old Free Community*, independent of the lord, and subject only to the law courts of the crown, Nitzsch found his original burgesses among an unfree class, and bound by the law and customs of the domain to which they belonged.

Two distinct schools thus arose in Germany, and all future researches fell for a time under one or the other of them. Then, in 1872, Heusler,† while confirming Arnold,

* *Ministerialität und Bürgerthum im xi und xii Jahrhundert.* Leipzig, 1859

† *Der Ursprung der deutschen Stadtverfassung.* Weimar, 1872.

attempted to harmonise the two. But as investigations proceeded, neither theory was found to account for the origin of municipal institutions in the great commercial cities like Lubeck and Hamburg. They are, accordingly, now regarded as insufficient; but the interest they excited diverted attention, for the time, from an older and more reasonable conception formed by Wilda in 1831,* when the Roman theory still held the field.

According to this hypothesis the development of the medieval borough was altogether due to institutions purely German; and the true source of municipal self-government lay in the *Schutzgilde* or *Free Association* for mutual protection. Wilda asserted that this association was identical with the *Commune*, which itself was entirely based on the corporative principle; and the initiative of the municipal movement was the *Oath of Brotherhood* mutually sworn by the members. These ideas, being in sympathy with the political sentiments of the days of Radical Reform when Wilda lived, spread rapidly in France, England, and the Netherlands.

Augustine Thierry adopted them in his *History of the Tiers Etat*; Luchaire has since taken them up in his *French Communes*; but they have been so largely developed by Gierke,† that his name is attached to the Gild theory, equally with that of Wilda. A synopsis even of the chief points of this theory would unduly prolong this paper, but it may be observed that while Merchant Guilds exerted a powerful influence upon municipal development, and in some of the French and Flemish communes apparently became the governing body of the town,‡ the identification of the gild with the commune is not supported by sufficient documentary authority, and the town

* *Das Gildenwesen des Mittelalters.*

† *Das deutsche Genossenschaftsrecht.*

‡ Luchaire, 31, 32.

community with its organisation did not, in Northern Germany at least, spring from such a source. Such is the opinion of Professor Karl Hegel,* who has probably made more researches into the history of municipal law in England, France, and Northern Europe than any of his contemporaries; and Dr. Gross, an authority almost as great, agrees with his conclusions.†

The Gild theory, however, found a third exponent in Nitzsch, the same who had sought for the first burgesses among the episcopal *ministeriales* of the cities of Southern Germany. He agreed with Wilda so far as the towns of Northern Germany were concerned, but attributed their origin to a *Primitive Gild*, the parent of all later gilds. Partial to his other conception of the unfree source of civic institutions in Southern Germany, he believed that this Primitive Gild comprehended the whole population of the town, free and unfree; and that it existed not for the safeguarding of independence, but for the protection of commerce. Its purpose was social and not political. Nitzsch did not live to complete his hypothesis, but it met with singular favour, and provoked numerous investigations tending to confirm it.

The next scholar who followed in the track of Wilda, tracing municipal institutions to a German source, was Georg von Maurer, the advocate of the *Mark* theory.‡ His studies were directed to the rural organisation of Germany, and these led him to conclude that the German town began as a village community of the *Mark*, and that while Wilda affirmed that burgomasters, and sworn members of the council, were originally gild officers, they were

* *Städte und Gilden der Germanischen Völker im Mittelalter*. Leipzig, 1891. See Review of this in *English Historical Review*, viii, 120.

† *The Gild Merchant*. Oxford, 1890.

‡ *Geschichte der Städteverfassung in Deutschland*, 4 vol., Stuttgart, 1869-1873.

really descended from the overseers and managers of the *Mark*. This new conception was refuted almost as soon as it was formulated, but it was subsequently supported to a considerable extent by Dr. Georg von Below,* of Munster. In his opinion there existed no difference between the powers of the later Town Council and the village *Burding*, or assembly of the peasant proprietors; and the town commune (*stadtgemeinde*) and the rural commune (*landgemeinde*) exercised the same kind of jurisdiction, for example, over common lands, public buildings, weights and measures, police, and the like. The city, in short, was a local commune, neither derived from the *Hofrecht* or Manorial Court, nor the Gild. The primitive burgesses were not merchants, as the Market theory of Sohm, presently to be noticed, affirmed—they were simply householders and owners of the soil—members of the commune. These opinions have been very recently endorsed by F. Keutgen in the *English Historical Review*,† who considers that von Below has proved his case,‡ while Professor Pirenne,§ a very high authority on the whole question, holds that von Below has not taken sufficient account of the influence of commerce and industry in the transformation of merchants into burgesses, and that as village communities were not in possession of self-government before towns, they could not transmit a privilege not already theirs.

The Market theory was formulated by Professor von Rudolph Sohm in 1890,|| and is the most novel of all the

* *Zur Entstehung der deutschen Stadtverfassung*, 1888. *Die Entstehung der deutschen Stadtgemeinde*, 1892. Dusseldorf.

† viii, 550.

‡ He has since published a work in support of it: *Untersuchungen über den Ursprung der deutschen Stadtverfassung*, Leipzig, 1895.

§ *L'Origine des Constitutions Urbaines au Moyen Age*. *Revue Hist.*, tome 58, p. 73.

|| *Die Entstehung des deutschen Städtewesens*, Leipzig, 1890

ideas hitherto conceived of the origin of municipal institutions.

For a long time the meaning of the *Weichbilden* and *Roland* figures which stand in the market places of many German towns had puzzled antiquarians. Professor Eichhorn, before mentioned, considered them to be effigies of the tutelar saint of the city, indicating that the surrounding area was an immunity, like the crosses on ecclesiastical lands.

But in 1886 Richard Schröder,* a pupil of De Waitz, propounded another interpretation, and maintained that such monuments denoted civic jurisdiction; that they were primarily erected in the market places, as tokens of peace and protection to traders; and afterwards regarded as the standing symbols (*wikbilden*) of municipal liberties. A few years later, 1889,† he enlarged upon these ideas and asserted that the German town derived its right of local self-government from the concession of a permanent market, and that this concession was the gift of the crown. In the same year Aloys Schulte, in a work on the new cities of the Abbey of Reichenau, published a charter, till then unedited, wherein by the grant of a market to Radolfzell near Constance, A.D. 1100, the freedom of the town appeared to follow as a necessary consequence.

Strongly impressed with these researches and speculations, Professor Sohm immediately formulated his scheme. German municipal government originated entirely in the royal grant of a permanent market. The proof of this grant was the *Weichbild*, the market cross, which was the emblem of royal authority. The town thenceforth was

* *Weichbild*, part of a series of Historical Essays published in memory of Georg Waitz, by some of his pupils. Hanover, 1886.

† *Lehrbuch der deutschen Rechtsgeschichte*, Leipzig, 1889.

accounted as a royal residence, the king being theoretically always present. If this were so, then the law which ruled in the royal palace and its precincts, ruled in the market and town; and like the palace, the town became an asylum or sanctuary, a privileged area, a place of immunity, with its own distinctive tribunal and judge, exercising at first jurisdiction over trade and police, and then over matters concerning property and land. From this point, the advance of the town was unimpeded, until ceasing to belong to either king or territorial lord, it attained full freedom in the possession of an administrative body, *Rath*, or council, which superseded the royal judge aforesaid. This hypothesis was so logically constructed, and so attractive withal that it received marked attention. Nevertheless it had many weak points, only one or two of which can be noticed. Such great towns as Worms, Mainz, Spire, Tournay, Leyden, and Ghent possessed no privileged market until the 13th century; so that in their case, the institution of a market did not create the town. When municipal life was fully developed, every town undoubtedly had a weekly market for the supply of its necessary wants. But when the king or the local lord established a market therein, it was rather for his own pecuniary benefit, than for any ulterior aim in the foundation of a town, or the promotion of commerce.

Another flaw in the theory was the imperfect view taken of the royal authority in the German Kingdom. The Emperor-kings were on the whole more hostile than otherwise to the emancipation of the towns. From the 12th century, the period, that is, when municipal constitutions were established, it was their policy, contrary to that of the French kings, to aid the princes against the towns; and it is only towards the close, and not at

the beginning of the Middle Ages, that we see the German cities demanding their freedom and the rank of immediate vassals under the Empire.

Such, then, are at present the various theories conceived by German scholars, of the origin of towns and municipal government. Theories, because, as Professor Luchaire observes in his book on the *French Communes*,* the absence of documents relative to municipal towns and boroughs, for four hundred years, from the 7th to the 11th century, wherein the germs and first signs of municipal government lie obscure, has tempted scholars to exercise their ingenuity and display their erudition in the solution of a most interesting and complicated question. And if none of these theories can be accepted in itself, yet each of them contains some portion of the truth, while all are based upon patient and minute research, which has enlarged our knowledge and given an active stimulus to historical study.

I shall now proceed with as brief a survey as will be intelligible, of the circumstances whence the self-governing towns of the 13th and 14th centuries arose. We shall then be more able to estimate the value of the theories which have been passed under review.

The age which immediately followed the settlement of the first barbarian kingdoms, when commerce was paralysed and the Mahomedan races had almost entire control of the Mediterranean, has been aptly termed the Agricultural age of Western Europe. During this period the soil was the only source of wealth, and gold and silver almost disappeared as circulating mediums. Then it was that feudalism and the seigniorial system grew; small proprietors fell beneath the great chieftains; neighbouring

* p. 11.

lands and marches were absorbed in the Great Domain; the *ingenui*, the native free cultivators of the Roman period, diminished and the *servi* increased; rustic and serf became synonymous terms. While liberty thus fled from the rural districts, free urban life ceased in the Roman cities; they fell into the hands of the great lords; their buildings decayed or were despoiled for the construction of castles and fortifications. Professor Flach in his remarkable work on the *Origins of Ancient France** presents us with a graphic picture of the vicissitudes which befel the Roman cities at this time. We there see how the inhabitants, abandoning the open quarters, either retired within the walls of the citadel, or sought shelter in a *castrum* or *civitas* hurriedly constructed of the ruins of the city, such as can still be traced at Autun, Dijon, Bourges, etc. When the era of invasions came to an end, and order was comparatively restored, the population again spread beyond the walls, and cantoned themselves in fortified *bourgs*, *forbourgs*, or outer bourgs (*burgus forensis*), either under the protection of the local lord or within the immunity or sanctuary of a church or monastery. The restored Roman city of the Middle Ages was thus primarily composed of two distinct parts. In the centre stood the *castrum* or *cit  * properly so called, representing the ancient town, the *urbs antiqua*, *urbs vetus*; and outside this were the surrounding bourgs, each with its own system of defence, military or religious. A crowd of rival authorities ruled within and without the walls. There existed all kinds of immunities and territorial jurisdictions held by counts, viscounts, burgraves, castellans, vidames, avou  s, provosts and other functionaries of the sovereign or the local lords, lay or ecclesiastical. And as these lords and jurisdictions varied

* II, Chap. 5.

in number and character, so were the inhabitants broken up into divers groups, even those depending on the same lord. There were knights, clerks and freeholders; officials and servitors innumerable; handicraftsmen, both free and bond, each of whom was subject to real and personal obligations peculiar to his class, and amenable to the jurisdiction of his own special court of justice. The town in short was an entangled network of lordships within lordships, of overlapping jurisdictions, of men dwelling within the quarter of one lord and owing service to another.* There could be no sort of connection between such a state of things and the régime of the old Roman *Municipalia*: the municipal magistracy was gone, and the medieval borough did not appear until these varying groups of the population were assimilated, and the rival authorities absorbed into one municipal organization.

The majority of the oldest medieval towns were the restored Roman cities. This was due, not to any prestige attached to their Roman origin, but to the great natural advantages which their position offered for trade—at the head of an estuary, at fords and bridges, at the confluence of navigable rivers, and at the intersection of the main Roman roads. And the same causes operated where Roman influence had been little felt. In North Gaul and North Germany, towns like Bruges, Ghent and Hamburg rose into existence with the restoration of Cologne, Worms, Spire, Laon, Soissons and Beauvais. Undoubtedly some towns grew up around castles and abbeys, but even in these cases, as in those of the *burgs*, which Henry the Fowler is said to have erected along the Elbe and the Saal, on the frontiers of the Wends, no towns arose therefrom, except where the situation was convenient for commerce and industry.

* Stubbs shows the same of London, *Constitutional History*, i, 93-95.

We may therefore confidently affirm that the medieval town owed its foundation mainly to the commercial advantages of its position, and to the facilities offered by its lord to traders by the grant of privileges and franchises, and the maintenance of roads, bridges and means of communication ; and finally that its municipal development began when merchants first resorted to it, and a new, busy and enterprising population was added to the original inhabitants, not bound to any lord nor attached to any domain.

The merchants comprising this new population were simple traders, pedlars and hawkers, who travelled from fair to fair, and conducted all the inland traffic, whether by road or river, of that early age. Only in the intervals of their journeys did they take up any lengthened residence in the town ; during winter or when the season was unfavourable through tempest or war. Gradually, however, they began to settle in the towns most convenient for their trade, surrounding their quarters with a fortified wall or pallisade, within which their persons and property could be kept safe from molestation. These business enclosures (*negotiatorum claustrum*) were most numerous in the towns of Flanders and the Rhineland ; and here as elsewhere, there arose a new town (*novus burgus*) alongside the old one ; a commercial faubourg, sheltered by the castle, and containing a market or forum, around which were grouped the houses and booths of the mercantile population.

As long as the town remained a mere agglomeration of contending lordships and conflicting feudal customs, these commercial tenements could not be held by a free tenure ; but the merchant himself, in the transaction of his business and apart from his tenancy, lived under the sole authority of the sovereign or other supreme lord, and was

protected by the public law of the land, the local courts being strictly enjoined not to interfere with his liberty in this respect.

For the early medieval merchant was a stranger and a sojourner wherever he came, and whether Jew, Lombard or fugitive serf, he stood outside the regular groups of feudal society—the *man* of no lord—isolated and unprotected. He thus needed the shelter of some befriending power; and since his occupation furnished a source of revenue to the crown, which taxed him in proportion to his profits, the crown in return watched over his person and property, and maintained for his benefit roads, bridges, quays and markets. This was his position under Karl the Great and the Saxon Emperors in the eighth and tenth centuries. But the intervening century saw the imperial authority broken up into local lordships,—and merchants, exposed to plunder and oppression on all sides, sought protection in the *Gild* or Free Association for mutual defence. Such an organization had long been maintained by them while on the road. They now established it in the towns on a permanent basis, where it virtually supplanted the old feudal authority in providing for the maintenance of ramparts, streets and public buildings. All merchants, whatever the nature and extent of their trade or industry, were eligible for membership; no distinction marked the general dealer from the craftsman; both were merchants in the language of the time, and the association was as democratic in its character as it was voluntary in its constitution.* This primitive character of the *Gild* did not long continue after the eleventh century. The settled governments of modern Europe in the west were then in course of formation; and, with the return of law and order, commercial enterprise

* This is the opinion of Nitzsch, as well as Pirenne; not of Hegel.

considerably extended its operations, and demanded larger capital as well as a greater division of labour. The artisan disappeared as a merchant, and fell under the employment of the wealthier trader; his interest and influence in the Gild departed, and he at length withdrew from it, anticipating it may be his probable expulsion. The Merchant Gild then comprised only the great commercial magnates, who monopolised in France and Germany the staple trade of every important town, and controlled the local markets and industries. These wealthy *parvenus* very early possessed themselves of the municipal government, disfranchising the craftsmen and establishing an oligarchic republic in the great commercial centres.* Many obstacles, however, had to be overcome before this supreme position was attained. Powerful as their gild was, it had no authority beyond the limits of trade and the internal discipline of their own faubourg; and while some among them were descendants of the old freemen, the judicial position and personal liberty of the majority rested on a very precarious foundation. But they had ideas and aspirations altogether out of harmony with their feudal environment. Their sentiments gradually impregnated the minds of their neighbours; the code of customs (*Jus Mercatorum*), which had grown up among them from very early times, and was observed by them wherever they went, embodied many liberties and privileges, which found their way into the oldest charters, and were at length incorporated with the municipal law of the town.

The earliest manifestation of this silent revolution was the transformation of the primitive migratory merchant into a settled resident, with an interest in the soil on which he dwelt. This residence converted him who was not already free into a free man (*liber homo*); he was a

* See Vander Linden's *Hist. de la Const. de la Ville de Louvain*.

burgess as well as a merchant, and both terms bear the same meaning in documents of the eleventh century.

Many of the merchants, as has just been observed, were men of servile birth, who had abandoned the cultivation of the soil for a better livelihood by trade in the towns. These were still bound to the law of the domain from which they had fled; they were liable at any moment to be reclaimed by their lords, and the same risk awaited their children. Such a custom, natural enough amongst an agricultural population, could not long exist in a mercantile or manufacturing community; while the difficulties of producing proofs of an escaped serf's previous condition were often so great that many lords did not trouble to pursue him. A crowd of circumstances, moreover, now combined to promote a general movement towards emancipation; and although numerous impediments beset the path of freedom, by the twelfth century the rule was established that residence in a town for a year and a day enfranchised the serf. So strong, indeed, was the prevalent spirit that the qualifying term was sometimes considerably less, extending only to forty days at Courtrai. In this way the merchant and his children, serfs by birth, attained personal freedom; and his oath, according to the charter of Liège, was accepted in courts of justice equally with that of the born freeman. And since the complexity of feudal lordships grievously harassed trade, and prevented those who were dependent on a lord from profitably engaging therein, freedom of tenure and of the soil accompanied this achievement of individual freedom. The land within the walls being built upon, or let for that purpose—*mansionaria terra*, as it is called in the charters—differed in its nature from the farm land of the domain. It had acquired a commercial value, and it was inevitable that the proprietor of the buildings, who

had invested capital therein, and probably drew rents from tenants, should have an interest in the soil on which he had erected warehouses, shops, and tenements. Hence a tenure originally servile became free. Compared with the old feudal tenure, it was a tenure according to the Custom of the Market (*consuetudo fori*); in Germany a tenure in *Burgrecht* or *Weichbild*; and in France and England a *Burgage* or *Borough* tenure.

This change first appeared in lands belonging to the Crown, and then gradually affected all landed property within the walls, except that which pertained to the Church; and since such free land necessarily fell under the public jurisdiction, like free men, no transactions concerning it were held to be valid unless they were registered in the royal sheriff's court, or ratified by the municipal council. Feudal land courts, however, had not disappeared in the thirteenth century; but after this, the towns began to buy them up, and the soil, thus freed from these courts, was then subject only to the rent due to the lord, often a mere nominal sum, and a simple recognition of his ownership—fixed and imprescriptible. Thus was personal and land servitude not alone suppressed, but with it all the seigneurial rights and all judicial fines for justice, which impaired the freedom of trade. Market tolls fell more or less completely under the town jurisdiction, together with the supervision of weights and measures; and the old manorial customs either wholly died out, or adapted themselves to the new order of things.

All this progress began to be specially manifest, when men established their rights in the town, not by virtue of their social position, but by their residence; and its germ and potentiality lay in the *Jus Mercatorum*, in which the individual rights of merchants had been so early elabor-

ated. In the communal conflicts of the eleventh and twelfth centuries, it was not the merchants alone who revolted against the old seigneurial customs. All groups of men in the town, social and judicial, joined in the uprising, eager to share in the new rights and privileges, and alter the law in accordance with their new commercial and industrious life. Our information on this interesting communal agitation is as yet but scant and imperfect; but this is clear—that in the twelfth and thirteenth centuries the towns had effected a radical reform in their judicial and administrative constitution. The old seigneurial officers had either disappeared or become transformed into municipal officers, as in the case of the Carolingian *scabini*, who in the period preceding communes were seigneurial aldermen or sheriffs (*schöffen*), but now held their courts with the aid of burgess assessors, and consequently under some municipal control. This point, however, is surrounded with difficulties, and the opinions of scholars upon it are very diverse. But whatever traces of the old suzerainty remained, the burgesses now managed their own affairs, and the town formed a distinct judicial territory—a franchise—and was no longer a constituent part of the Hundred or the Grand Domain.

Let us now retrace our steps in order to take note of some of the factors which contributed to this result. The oldest of these was probably the possession of property in common by the old freemen of the antique Roman town, and the communal rights of property pertaining to the primitive families in villages which eventually grew into towns. The patrimonies in these respective localities continued to remain in the exclusive possession of the free descendants of the original owners, who were thus placed in the condition of a community (*universitas*) such as

existed at Marseilles and Arles, old Roman towns, and at Ardres, a town of village origin. The idea of a community of possession, whether of land or privileges, was persistent; it was adopted by the founders of towns, and was rarely absent when bourgs were formed around the *castrum*, or primitive nucleus of the medieval borough. Community of property involved co-operation and common action, and this in turn welded together the various social groups into one corporate body. In days when the isolation of the individual constituted his greatest peril, the members and branches of the same family generally crowded together in the same quarter of a town or its suburbs, and there organised themselves into a kind of corporation for mutual assistance and defence. Fostered by traditions of the ancient charitable and fraternal associations of Rome, and the remembrance of the old German institutions of a similar nature, these family groups grew into larger communities, indifferently called guilds, fraternities, and charities. Such were, in their simplest and earliest form, the *Charity of the Lower Hall* at Valenciennes, and the *Gild of St. Omer*, both of which exerted a paramount influence in the municipal growth of those towns.

Another factor is to be found in the active policy of the Church. As a rule, this policy was hostile to the growth of free municipal institutions, which were considered to be incompatible with the maintenance of ecclesiastical interests; but the organisations which the clergy promoted for the safety of these, brought the people into closer relations with each other, and taught them the advantages of combined action for their common benefit. In every parish the church was the centre of civil life; the *forum* and the *hotel-de-ville* of the parishioners, where public acts, enfranchisements, elections, banquets, and love-feasts took

place. There the parishioners assembled, and under the direction of their priests formed those associations for enforcing the *Truce*, or *Peace of God*, which spread through every diocese, and constituted the only power in the troubled times of the tenth and eleventh centuries, able to curb the violent and the lawless. The *Town Peace* (*pax civitatis*), the most potent of all the factors which contributed to the development of municipal government, may have had its origin in these associations, as some have thought; but whether this be so or not, it constituted an essential part of the nature of every medieval borough in the north of France and Germany, and by it the heterogeneous groups within the circuit of the walls were thenceforward united by the solid and durable bond of one common law. Released from the jurisdictions to which it had aforesaid been bound, the town became an independent judicial area—a political unit—a commune to which every resident was called upon to swear obedience and fidelity, or depart beyond the limits of its protection. And as the peace of an ecclesiastical community was symbolised by a cross, so the commune erected the belfry, the *berg-friede*, the tower of the peace, as the symbol that it also was an immunity, with special privileges and powers.

When Baldwin III, Count of Hainault, granted the peace to his town of Valenciennes in 1114, it extended to all the dwellers therein, serfs as well as merchants. All distinctions and peculiar jurisdictions were done away with; all householders were *homines pacis*, and the peace so conferred became the law of the town, the *lex ville*, or, as it was termed in a charter at Poperinghe, *pacis securitatem*.

Hence we find that *Peace* and *Commune* bear the same meaning in the charters of that time; the officers of the

commune are variously styled "*warders of the peace*" and "*warders of the brotherhood*;" and the burgesses generally are "*jurati pacis*," sworn men of the peace. These were no longer amenable to the seigneurial court; they had now their own municipal tribunal, under the presidentship of a magistrate, *mayor*, *écoutète*, or *aroué*, who while being more or less, according to local custom, a crown officer sworn to be faithful and obedient to the sovereign, was equally a municipal functionary, bound by oath to respect and uphold chartered privileges. The burgesses, moreover, had a voice in his nomination, and a select number of them sat as assessors in his court, and imparted to it a municipal character.

These civic courts, which gradually suppressed the old seigneurial justice, probably came into existence with the communes in the eleventh and twelfth centuries; but we know very little about them until the general concession of charters, in the succeeding century, gave the force of law to usages which had previously depended on the will of the lord, or were maintained in spite of it. The latter was generally the case in the episcopal cities. Communes were here founded by force, because bishops and abbots fiercely denounced the new political ideas, and obstinately refused charters until they were compelled to capitulate by repeated insurrections. And although secular princes were more yielding, all lords at first granted their charters reluctantly, and sought, by the insertion of saving clauses, to retain their prerogatives; while instances are not rare where advantage was taken of these clauses to recover rights which had been formally surrendered. A wiser spirit prevailed in the end. Some lords, perceiving that their interests lay in the growth of civic enfranchisement, and the promotion of trade, founded new boroughs which, being unfettered by historic traditions, established inter-

ests, and the survival of an ancient order of things, sprang at once into the full possession of liberties, not acquired by the old towns, except through long and painful processes. Conspicuous among such towns were those founded by the illustrious house of Zähringen, Dukes of Swabia, in the Breisgau and Swiss Burgundy, viz., the two Freiburgs, Berne, Burgdorf, etc. The charters of these new towns of the twelfth century are, in the estimation of Professor Pirenne, the clearest and most perfect documents of municipal rights in Europe.

The general administration of the town was entrusted to a council, originally a simple magisterial body without any presiding officer. But as the municipal organisation developed, and the need was felt of a firmer and more independent authority, mayors and burgomasters were appointed who, with the *jurati* or sworn members of the council, personified the municipality, as the sovereign represented the State.

We have no precise information concerning the responsibilities of these councillors in the earlier period. According to Thierry and his school, who regarded the communes as petty democratic republics, they were elected at the annual general assembly of the burgesses. This may have been the custom at first although we have no evidence of it. But it could not have continued long, since the *patrician* burgesses very early obtained the monopoly of the civic government, and seem to have recruited their ranks from amongst themselves, making their offices hereditary.

At Rouen the council consisted of a hundred members called *pares*, but how elected we know not. Out of these was formed an executive body of twenty-four *jurati*, who again divided themselves equally into aldermen and coun-

cillors, and in these the whole power of the commune was vested.

At Beauvais, the Changers' or Bankers' Gild appointed seven out of the thirteen members composing the council, twenty-one other gilds choosing the minority. The council at Tournai was equally exclusive; at Amiens it was more open, while in some of the German episcopal cities the *ministeriales* commanded a certain number of seats.

The town council was judicial as well as deliberative in its character, according to the custom of public bodies in the Middle Ages. It not only administered the general affairs of the commune, the militia, police, finances, &c., but it also enforced the bye-laws respecting these and all other concerns of the town. It exercised further jurisdiction over commerce and industry, fixing the time and place of markets, and the price of commodities; testing their quality and regulating the handicrafts.

When the town had reached its full municipal development the burgesses no longer constituted a class of equal social conditions. Commerce had made many of them rich and influential; and although the majority of the population were still traders and artisans, inequalities of wealth and station had grown up among them, and the words *mercator* and *burgensis* were no longer interchangeable.

The right of burgess-ship, originally personal, was now territorial. Residence was the primary qualification, and no one could claim admission into the commune unless he had a settled dwelling in the town, and slept and waked therein. *Die Stadtluft macht frei*. So qualified, he was called upon to take the communal oath, for which reason burgesses are called *jurati* in the charters, and the town clock in Germany was known as the "Oath Clock" (*Eid-glocke*).

These two conditions were inseparable and binding on all householders, whatever suit or service they might owe to any lord, other than he who had surrendered his rights by granting the commune.

There were, however, certain sections of the population whose position was very ambiguous; who dwelt within municipal jurisdiction, yet were outside the corporate association. These sections comprised the clergy and nobility, with their officers and servants, the *ministeriales*. As a rule the two former were not recognised as burgesses; but there were exceptions to this as regards the clergy, and nothing can be definitely affirmed on account of the variety of customs, and the different interpretations given to them by scholars.

The *ministeriales* were the cause of most of the émeutes which agitated the communes in the 12th and 13th centuries. If serving under bishops, abbots or chapters, they claimed the privileges of their immunity and acknowledged no other jurisdiction than that of the ecclesiastical courts. If attached to a temporal lord, they shielded themselves under his protection, and defied the communal magistracy. Such conditions entailing perpetual turmoil could not long endure, and when the towns bought up all peculiar jurisdictions within their limits, these troublesome neighbours fell into the commune, and in some localities the clergy with them. The newly founded boroughs would have nothing to do with them, and prohibited their admission to burgess rights.

Another group of men whose pretensions interfered with civic order were the merchant clerks—traders, who, adopting the tonsure and garb of ecclesiastics, and affiliating themselves to some religious brotherhood, claimed the “*benefit of clergy*,” although exclusively engaged in secular affairs. This abuse was resented, and in every suit

brought before the Parliament of Paris it was condemned and the pretenders ordered to join the commune and pay their share of the common charges like the honest burgesses.

In the earlier period of the communes, and before the democratic revolution of the thirteenth century changed the composition of the town council, there existed a third burgess qualification—that of property. The charter of Laon, 1128, provided that whoever was received into the peace of the town, must, within the space of a year, build himself a house or buy vineyards, or bring with him a sufficient quantity of his moveable property to enable him to satisfy justice, if by chance it have any subject of complaint against him.* The charter of Abbeville required the new comer to be a house-owner,—and in the new borough of Freiburg in Breisgau the value of his property qualification could not be less than a mark. Similar conditions were laid down in the charters of Altenburg, Eisenach, Frankfort, and Vienne. The reasons for this property qualification are obvious. A burgess ought to present some substantial guarantee of his ability to pay the local charges, and any fines he might incur in the course of litigation, as the charter of Laon expressly states. He who came into the town without a fortune was said to be useless to it, "*inutilis villa*," and for a like reason, lepers, incapables, insolvent debtors, and all persons likely to be a source of trouble and discord were excluded from the commune. Even a craftsman could not gain admission into his gild unless he wore a garment at least equal in value to any fine that might fall upon him. For it must always be borne in mind that the primary purpose of a borough or commune was that it should be a place of security for peaceful and industrious citizens

* See charter in Guizot's *Civilisation*, iii, 321.

against feudal violence without. Therefore it was walled and fortified, and the burgesses within it were a garrison of traders and artisans, every one of whom ought to be able to take up arms in its defence and contribute his share of the general expenditure.

It was the possession of landed property within the town and its suburbs that distinguished the burgesses styled "patricians," of whom we read so much in the history of the Hanse Towns, of Zurich, Berne, and indeed all the great cities. These were merchants of the higher sort, who, enriched by commerce beyond sea, invested their surplus wealth in lands and tenements, until, in some instances, they became the only owners of the soil, and were able to dominate the gilds and the civic council, and make themselves, as they were often called, the *lords of the town*. They are spoken of in the texts as "*cives optimo jure*" and "*majores*," while the craftsmen, whom they exploited and excluded from power, are called "*minores*," plebian burgesses, "*men with blue nails*." The oligarchy which they established provoked general revolutions in the thirteenth and fourteenth centuries—first in France and next in Flanders and Germany. The shopkeepers and wage earners then obtained admission into the municipal council; but, although the change rendered the communes more democratic, it did not alter their essential character. This was effected by other causes. During the struggle with their feudal lords the French towns often sought the intervention of the sovereign, and regarded him as their patron and protector. This was prejudicial to their independence; for when the crown grew strong and the nobility succumbed to its authority, the communes, after a brief life of two hundred years, submitted also, and they fell under the control of royal bailiffs and provosts. But these officers were

jealously watched, lest they should grow too independent; and they were bound to observe the ancient customs and franchises on pain of being cited before the Parliament of Paris for any infraction of the same. The loss of their civic independence, therefore, did not materially impair the growth of the *bourgeoisie* in wealth and influence, but they possessed no political power until the famous meeting of the States General in 1789.

The Flemish communes survived their neighbours for more than a century, owing to the confederation formed by Ghent, Bruges and the leading towns, for the maintenance of their common liberties. It was this policy of confederation, combined with other causes, which also preserved the independence of the German towns. The German kingship, never vigorous, was greatly enfeebled by the imperial policy of the Hohenstaufen. About the same time the great Duchies became extinct, and the kingdom was then broken up into a crowd of petty principalities practically independent. Towns depending upon local lords then threw off their allegiance; the royal towns rid themselves of the crown bailiffs, and both established a free local government. The latter, including all the most important towns, then formed those renowned Associations or Leagues which elevated them into independent republics—*freie Reich-Städte*—Free Imperial Cities, which, in the height of their power, maintained fleets and armies, waged foreign war and concluded peace, without regard for their nominal sovereign; and which finally obtained recognition as one of the three Colleges or Estates of the Diet, centuries before the *Tiers Etat* obtained a similar recognition in France.

HINDU DOMESTIC AND RELIGIOUS CUSTOMS.

By J. ERNEST NEVINS, M.B.

THE Hindus are divided into nations using different languages and even different alphabets. Their customs have been modified in different parts of India by climate, Mahometan incursions, and Western civilisation, but still their social customs are those laid down by the great law-giver, Manu, and the holy books. These customs, as seen to-day amongst the "Twice-Born" castes, will be shortly described. The customs amongst Mahometans, Parsees, and less important races in India, will not be alluded to.

The first ceremonies are those which precede the arrival of the Hindu baby in a world where all its life will be regulated by ceremonial semi-religious rules. As soon as there are signs that a happy event may be expected, the expectant mother is put under a system of treatment guided by the presence of auspicious or inauspicious days, rather than by commonsense. On certain days in certain months she is given special food. She must carefully avoid doing anything unlucky, such as cutting anything during an eclipse of the sun or moon, for if she did so the child would be born mutilated.

She is also prepared by various religious ceremonies; friends are entertained in order that they may pray for good luck to mother and child, and also that they may give presents. The room is specially prepared by having a new mud floor put down, and various leaves and charms to bring luck are put about, and all is ready for the great event. One great object of the prayers and charms is to

obtain a boy and not a girl. A son is necessary to perform the funeral rites for the peace of his parents' souls after death; his income, when he gets one, goes to swell the general family purse; he adds to the dignity and honour of the family, and at the time of marriage his family profits more than the bride's.

A girl is little or no use for performing funeral rites; she will require a large dowry and great expense to secure a good husband, and if he dies she will have to undergo all the miseries of widowhood; whilst during her whole life her honour will need protecting, and she will be a source of anxiety to the family. Of course, there must be women in the world, and a Hindu will not object to a girl child if he has several sons already.

When the happy event is coming off, the mother is put in the special room; and with the idea of preventing cold all ventilation is shut out, and the room becomes delightful. In some parts of South India, the father is also put to bed, and obliged to take medicine.

The birth of a son is the occasion for great rejoicings, feastings, and charities, but the birth of a daughter does not cause any rejoicings of a public nature. In spite of what I have said before about the undesirableness of a girl child, the Hindu mother is very much the same as the English, and after the temporary disappointment at the arrival of a girl has passed away, she rejoices with her lady friends over the child, and thinks it the sweetest little darling that ever was; and her friends praise its little nose, and say it is the image of its father, just as they do here in dear Old England.

Whether the child be a boy or a girl the moment of its birth must be carefully noted, so that the astrologers, who have been engaged to watch the skies for omens, may tell its future, and write its horoscope. This is regarded as a

very important document, as in after life it proves a person's age and descent beyond question; and when marriage is being discussed, it is most necessary that the bride and bridegroom should have stars which coincide. It would never do for a boy whose guardian star is the Ram to marry a girl whose star is the Lion, or the Great Bear. Astrologers are people of great importance, as an orthodox Hindu will not undertake any business, journey, or pleasure, until the soothsayers have found an auspicious day; and every event of life—the day a child begins going to school, the day of betrothal, of marriage, and so on, must be regulated by the aspect of the stars. The Hindus are, as a people, extremely religious, or superstitious, whichever you like to call it. All days are lucky or unlucky. A man, with a son alive, must not be shaved on a Monday, or it will bring bad luck to his son. Some poor men who have been born under unlucky stars have sometimes to go unshaven for several days at a time.

If a man bathes in hot water or anoints his body with oil on Sunday, Tuesday, Thursday, or Friday, he will get disease or loss of some sort. If he starts on a journey toward the West on Friday or Sunday it will be unlucky. There will also be some evil consequence if a man dines with a friend or relative on Tuesday, Thursday, or Sunday. Fortunately most of these ill-lucks can be averted by saying certain passages from the holy books, or doing worship to some god or other.

The Hindus are also great believers in the evil eye, and attribute anything they cannot understand to demons.

In Bombay the Freemason's Lodge is called the "devil's house," as the natives could not understand what it was for, and thought it was for some villainy. Only last year a report was spread in Peshawar that the object of the missionaries in getting children to their school was to

kill them and make medicine out of their brains, and not very long ago, when one of the big river bridges was being built a half panic was caused amongst the workmen by a report that the English would cause a lot of people to die by enchantment, that they might put their hearts under the foundations of the pillars.

In Southern India it is believed that at the moment of birth the God of Fate writes with a nail on the forehead of the child what its future fate shall be, and a curious story is told of how the god was outwitted by a mortal over this matter.

A holy saint lived in a forest with his wife, and after he had attained great wisdom a disciple came to him, and by piety and study gained most of his preceptor's knowledge. After a time the sage went on a pilgrimage, leaving the disciple in charge of his wife, who was shortly expected to add to the saintly family. When the happy day arrived, the disciple was sitting on guard, when he saw a man going to his master's hut. This was really Brahma, the Creator, but the disciple had the power of seeing gods as men. He mistook the visitor for a Brahmin sage, and told him not to go to the hut as his master's wife was ill. Brahma disclosed who he was, and promised to tell the fate to the disciple after his nail had written it. On his return he revealed that the child's fate was, that it should be dependent for its livelihood on one buffalo and one sack of grain, never more nor less, and that this sad fate was probably due to bad actions committed by the child in a former birth. In course of time the disciple went on a pilgrimage for twenty years, and on his return found his old master dead, and the son living a poor life, dependent on one buffalo for the support of himself and his family. The holy man tried to persuade him to sell his buffalo and sack of corn in vain, till

the wife, who was a wise and virtuous woman, said to her husband, "Your father was a wise and holy man, and his disciple must be the same. His holiness would never advise us to our ruin." The husband yielded, sold his buffalo and corn, he and his family had the first good meal they had had for years, and all that was left of the money and food was given to Brahmins. Next morning there was another buffalo and sack of corn in the stable, for Brahma's nail had settled the fate, and Brahma had to provide what his nail had promised. Every day the poor man sold his buffalo and corn and gave what proceeds he did not want to the Brahmins, and every day a new buffalo and sack of corn were in the stable. A few months later, as the holy sage was meditating about midnight in a forest near, he saw a reverend looking old man wearily carrying a sack of corn on his head and dragging along a buffalo, and he said, "Who are you, sir, walking thus in the forest," and the old man threw down the corn and wept bitterly, saying, "Sir, my head is almost bald with carrying this sack of corn every day to the poor man. I must take him his corn and buffalo every night, for my nail wrote that fate on his forehead, and I must fulfil what my nail writes. Oh when will you relieve me of the troubles brought by your device." For behold it was the great god Brahma himself! There was only one way in which he could alter the destiny written by his nail, and that was to transfer the poor man and his family to celestial felicity. So this was done, and the God of Fate was relieved from his worries.

This is a Southern Indian story. The same idea about the God of Fate writing prevails in Northern India; but amongst the Brahmins of Bengal it is not supposed that the fate is written till the sixth day after birth. On that day the goddess Shasthi, who is specially the goddess of

married women, is worshipped with rice, bananas, sweet-meats, milk, etc., and a pen and ink and some other things are put for the God of Fate to write the destiny on the child's forehead, a destiny which, however, is not known to any mortal.

The next important ceremony is the naming. The date of this varies. Amongst the Bengal Brahmins it is not till the child is six months old, but amongst the people of Baroda, where I was, the ceremony is done on the tenth or twelfth day. This is fortunate, as all the near male relatives of the baby are looked upon as unclean till that day. They may not eat with their castemen, or be shaved; but before the ceremony they shave, do some worship, which includes drinking what we should consider filth; perform the ceremonial ablutions, receive a new sacred thread, and become pure again.

Regarding the name there is a curious custom. The real name of the child is only told to the spiritual teacher,* whilst another name, which is the one for use and by which the child is known to mortals, is given in public. The object of this is to deceive the demons who are always waiting to do mischief. They only know the child by its real name. Suppose, for instance, that a child's real name is "Poonja," whilst its public name is "Gunoo." A person may call down a curse on Gunoo, but the demons don't know the child by that name, so no harm comes.

These public names are often those of the gods, under the idea that the frequent repetition of a holy name will bring luck to the house. Other public names are given of

* In old days, the spiritual teacher and his pupil were connected by sacred bonds which required the latter to support the former, who had great religious power over him. Now-a-days, the spiritual teacher's functions may not be more important than those of a godfather or father-confessor.

an opprobrious character, so that the demons may not be attracted by the beauty of the name to turn their thoughts to the child. Names which mean "crooked eye," "stupid," and so on, are given. A third group of public names are given after ancestors, as with us.

The naming ceremony consists of putting holy water or rice into the child's mouth whilst its public name is pronounced; worship is paid to the gods; a memorial offering, or "Shraddha," given to the deceased ancestors, and Brahmins, friends, and beggars are feasted.

During the first three or four years of life children play about with little or nothing on, the usual garment of a well-to-do child being a little shirt much too short, and of a poor child a piece of string round the waist, with a charm tied to it. Children, being pretty, are very liable to have evil eyes cast on them, so special precautions must be taken to avoid this. After children are washed and their hair brushed, they look particularly beautiful, and any evil spirit seeing them would soon work mischief; so a black or red spot is put on their foreheads to make them less attractive to demons. If a stranger looks fixedly at a child, and says, "How beautiful it is," steps must be taken at once to avert any possible evil-eye effects, for you can never tell whose eye is evil to the child, and as you may not be present to hear the stranger's remark, the child should always wear an amulet. The most common of these are: (1) a small metal case containing some verses from the holy books; (2) a tiger's claw; (3) a necklace of beads with irregular markings; (4) a blue bead.

The next ceremony in the life of a boy is the first hair-cutting, which takes place in the third year amongst the Brahmins in the Bombay-Poona district, but varies very much in date in different districts and amongst different castes. A less variable thing is the first cutting of the

nails, which takes place in most parts of India some time about the sixth or seventh month. Up to that time the child's nails have been trimmed by its attendant's teeth or fingers, as to cut the nails with any iron instrument would certainly bring bad luck. This must not be considered as a superstition, but as a well-founded belief, for it guides the practice of many mothers at the present day in Liverpool, and anything which is believed in Liverpool in the nineteenth century cannot be called a superstition.

At about five years old the son of a well-to-do parent begins to go to the infant school, having first made a sacrifice of fruit and flowers to the Goddess of Wisdom, and put on new clothes; and for the next few years he lives the ordinary uninteresting school-life. Before going to an older school if he be a Brahmin, or later in life if he belong to either of the other "Twice-Born" castes, a boy must go through the ceremony of "second birth," and receive the sacred thread, which he must wear ever after.

The "Twice-Born" castes are the three main ones of Brahmins, warriors, and traders who have received spiritual as well as ordinary birth, whilst other people, included in the main caste of Sudras, and the outcasts, are only once-born.

Before receiving the sacred thread a boy, even if the son of a Brahmin, ranks religiously as a low-caste. He may not share in certain parts of the religious ceremonies, and if he dies it is considered that he must have committed some sin in a former life in consequence of which he is denied the second birth in this, with the benefits which it would obtain for him in a future existence.

The sacred thread consists of three strands twisted together, and is worn over the left shoulder night and day, a fresh thread being given once a year, or after the birth

of a child, or any other defilement. The investiture begins with the boy walking three times round a holy fire. Then the sacred thread is put round him by a Brahmin, and he goes round the assembly begging, in token that he undertakes, by this means, to provide for himself and his religious preceptor (though he does not really do so now-a-days). After that he is taught the *Savitri*, or holy prayer, and admitted to the privilege of repeating the Vedas, and joining in certain religious rites, which he could not do before.

Let us now turn to the little girls. At five years old amongst the orthodox Brahmins, and somewhat later in other castes, they begin to be taught religious ceremonies to procure them good husbands and happy homes. The first is to the god Siva, who is the type of a good husband, as he only had one wife, the goddess Kali, and was true to her. The little girl has to make two images of the god in clay, then she has to bathe and put on clean clothes to teach her cleanliness, then to offer flowers and leaves, sprinkle holy water over the image, and pray that she may have a husband good and faithful as Siva was.

The second is to the god Vishnu, to whom she prays that she may be good and beautiful; that she may be the mother of seven wise and virtuous sons and two beautiful daughters; that her daughters-in-law may be industrious and obedient, and her sons-in-law wise and celebrated men; that she may have worldly prosperity; and die on the banks of the Ganges, thereby procuring entrance into heaven.

The third is to various deified men and women, to whom she prays that her father-in-law, mother-in-law, brothers and sisters-in-law, may be all that can be desired; that she herself may be chaste, virtuous, and a

good cook and housekeeper; and that her husband may be loving and noble.

The fourth is specially to avoid the miseries of having a rival wife. A Hindu may have as many wives as he likes; and if he has more than one, there are perpetual jealousies and quarrels between them and their respective children. A rival wife is called a *Satin*, and the child is taught to pray against her husband taking a second wife, and for the destruction of such a rival if he does take one. Amongst other things she prays: "May I never be cursed with a *Satin*; may my *Satin* become a slave; may she be exposed to infamy; may I devour her head. May my *Satin* die, and may I see her from the top of my house. May I cause my *Satin* to die, and paint my feet with her blood."* Altogether, a very nice little prayer for a little girl of five or six!

When the time for marriage arrives, which may be any time from birth to old age in the case of a man, or from birth to fourteen to fifteen years in the case of a girl, proceedings begin in well-to-do families by visits of professional matchmakers, who know all the eligible boys and girls of the neighbourhood. They propose various suitable persons and discuss their merits, till at last one is settled on. The matchmaker is then sent officially to the parents of the selected child to make proposals, and describe the charms and social advantages of an alliance with the client sending her (for the majority of matchmakers are women). After a good deal of discussion, the first preliminaries as to caste, social and pecuniary suitability, are settled, after which come the questions what will be the bride's dowry, what income will the bridegroom have, what presents is each party to make, what feasts to give, and of what cost. When these matters are

* See *The Hindoos as They Are*, by Shib Chunder Bose, p. 38.

settled—and they require a good deal of haggling, as each party wants to make the best bargain—some of the bride's relations go to inspect the bridegroom, and *vice versa*. Each has to undergo an examination, the bride showing her deportment and grace, as well as how much she can read and write. In the case of a bride proposed for a maharaja, of whom I was told, the high officers of the husband's state put her through her paces like regular horse examiners. She had to come in first in plain clothes, without any special jewellery or ornament; walk about; take a seat, and so on; and afterwards she had to come dressed like a princess, and show herself off in that way. Of course, all this is only in the case of children of a certain age. In infant marriage, when the bride and bridegroom are only a few months old, the whole question is one of family and money.

The following rules are given to guide a Brahman in choosing a wife:—

“Let him not marry a girl with reddish hair, nor one with a superfluity of limbs (as, for instance, one with six fingers) nor one who is sickly, nor one with either too much or too little hair, nor one who talks too much, nor one who is red-eyed, nor one with a barbarous name. But let him marry a woman without deformed limbs, having an agreeable name, whose gait is like that of the flamingo or elephant, whose hair and teeth are moderate in quantity, and whose whole body is soft.”*

When all this has been settled satisfactorily, the soothsayers are called in to settle a lucky day for signing the marriage contract. A few days afterwards the bridegroom has to anoint his body with turmeric paste and stand on a mill-stone with four banana trees round him, whilst five women, whose husbands must be alive, walk round him

* See *Indian Wisdom*, by Sir Monier Williams.

five or seven times, do worship, and call down blessings. Two or three days later the father of the bridegroom feasts the relatives of the bride, and a few days afterwards the wedding takes place. All the days for these ceremonies must be lucky days, according to the stars under which bride and bridegroom were born. The marriage ceremony is a most elaborate and wearying affair, with countless little formalities chiefly arranged by the priests for their own benefit, and is followed by feasts on a large scale to the relations of both sides and to holy men and beggars of all kinds. A middle class man of moderate means will spend £200 to £300 on his child's wedding, and amongst rich men the expense sometimes runs to £10,000, £15,000, £20,000. There seems to be little true friendship involved, as during the whole time both sides are trying to get as much money value as they can, and do not scruple to complain openly if they do not think that the feasts and presents are proportionate to their dignity.

All the time the ceremonies are going on, the bride's womenfolk are working supposed charms to get the bridegroom's affections for the bride and make him think more of her than of his mother, for the Hindus have no law that a man shall leave his father and mother and cleave to his wife and they twain shall be one flesh. The husband remains in his father's house and owes more duty and love to his mother than to his wife.

One of the charms is to make the bride suck two betelnuts all the day previous to the marriage. If the bridegroom afterwards chews these his love for his bride will exceed that for his mother. So the mother's last words to her son before he starts for the marriage at the bride's house are to chew no betel-nut except what she has given him. Immediately after the actual marriage knot is tied the bridegroom goes into the women's part of the bride's

house, where his new sisters-in-law and their lady friends have full liberty to tease him and play practical jokes to their hearts' content, and, unless the bridegroom is a boy of extraordinary strength of will, they compel him sooner or later to chew the betel-nuts which his bride has been sucking all day.

Later, the bride and bridegroom play a game with little earthen pots. The bridegroom has to fill them and the bride puts the lids on whilst she pronounces her husband's name for the first time, the idea being that she may in the same way close his mouth in after life and prevent his scolding her. To fill a man with food and to cover a woman with jewellery seem to be amongst the Hindus the two great methods of pleasing the two sexes.

The mother of the groom on her side does all she can to retain the love of her son and to cause her daughter-in-law to be industrious and obedient. To effect the latter she puts honey into the bride's ears and sugar into her mouth that she may hear submissively and answer sweetly.

The actual marriage service consists of the recitations of various holy passages by the Brahmins whilst the bridegroom offers holy water, clarified butter, milk, flowers, and sweatmeats to various gods. The hands of bride and bridegroom are tied together with a garland of flowers, whilst the bride's father gives her to the future husband, reciting the names of her parents, grand-parents, and great grand-parents. The bridegroom says, "I have received her." They then take seven steps towards the north-east, the groom repeating certain words at each step, and the seventh step makes the marriage irrevocable. Their heads are then put together, holy water is sprinkled on them, a cloth thrown over them, the husband draws

aside his bride's veil and sees her face for the first time.

The modern educated young Hindus are not so trusting as their fathers, and try by some means or other to get a peep at the future wife on the sly before marriage.

After the ceremonies, the bride goes for a time to the house of her father-in-law, where, amongst other things, she has to feed her husband and eat afterwards what he has left, to teach her the proper position of husband and wife. But in the case of a child-wife, she returns to her own father's house, where she stays till she is about 12 or 13. Then a second ceremony takes place, somewhat like the former, only on a small scale, and the wife goes to live permanently with her husband. The first great ceremony is the real marriage, and if the husband die before his bride has left her father's house she is nevertheless a widow. For a year after marriage the respective fathers have to make presents to each other, but these, like the nuptial feasts, are not tokens of good will, but matters fixed by rigid custom.

One other ceremony we will allude to in connection with marriage, and that is one given yearly in honour of the son-in-law. It takes place in May, when the husband visits his wife's mother, who entertains him with all the delicacies of the season and presents him with clothes and sweetmeats in order to keep him dutiful to herself and loving to her daughter.

The mother-in-law in India is not a terror to the husband, as her whole object is to keep him sweet, but the husband's mother is in many cases a terror to the young wife during the husband's life, and a tyrant to the young widow after his death.

The unhappy way of arranging marriages without the two persons most interested having any voice in the

matter did not exist in the old days before Mahometan conquests had made all men hide their womenfolk as precious treasures. In those times women went about the world fearlessly, and true love and chivalry played their part in the shaping of men's actions. Maidens of high degree choose their husbands at a ceremony called "Swayamvara," or "Free Maiden Choice," from amongst the nobles and warriors who had assembled to compete for their hands.

Such ceremonies are described in both the great Hindu poems, the "Mahabharata" and "Ramayana," and it was practically a maiden's free choice which led to the destruction of the Hindu power in Delhi and its neighbourhood.

The story, which reminds one very much of Young Lochinvar, is this:—

In the good old days, before the Mahometans over-ran the North of India, the two great Hindu Princes were the Rajas of Delhi and Kanauj. The former considered himself the over-lord of all the North of India, but to his disgust the Raja of Kanauj claimed the position, and fixed a date for the ceremony of acknowledgment by his tributary chiefs. Now, on such occasions it was the custom for all menial offices at the Suzerain's Palace to be filled by vassal Rajas, and in his pride the Raja of Kanauj summoned the Raja of Delhi to act as door-keeper. The Raja of Delhi was furious and, of course, would not go, so the Raja of Kanauj made an insulting figure of his rival and put it on guard at the doorway. Now, he had a lovely daughter of marriageable age, and determining to make the date of his acknowledgment also the date of her "Swayamvara" or free maiden choice, he made a proclamation to all Kings and Princes who wished to compete for her hand. In those free days maidens were not hidden from the eyes of men, and the brave young Raja of

Delhi had seen and loved the maiden, and gained her love in return. The day came, and with it came all the great men from far and near in their finest array, save only from the Kingdom of Delhi, which was represented by the insulting figure of its Raja at the door. With the other strangers came a few unknown men, who remained near the entrance of the Palace whilst the Princes competed for the lovely maiden's hand. When the competition was over and all waited for the Princess to throw her garland round the neck of the man she chose, she walked down the hall with stately head and flashing eye, and to the amazement of all she threw her garland round the neck of the figure at the door. Immediately the leader of the strangers, who was the Raja of Delhi in disguise, clasped the maiden in his mighty arms, sprang upon his gallant steed, and galloped away in triumph, whilst his followers held the foe at bay in the gateway till he was safe. Unfortunately the Raja of Kanauj was not strong enough to take revenge by himself, so he asked the Mahometan Afghans to come and help him. Together they destroyed the Kingdom of Delhi, but the Afghans were not content to stop there. They proceeded to destroy the Kingdom of Kanauj also, and rapidly overthrew the whole Hindu sovereignty in North-west India. This was about A.D. 1200

Having chosen a wife, a man must next choose a house. If a man is going to build one for himself he should carefully choose the site. Whitish soil is good for Brahmins, whilst yellow will suit traders. A hole knee-deep should be dug in the selected ground. If the earth, when replaced, more than fills it, the ground is good; if less, then the ground is bad. At sunset the hole should be filled with water. If next morning the water is still there, the soil is excellent; if all water has gone, the soil

is bad. In other words, the Hindoo is directed to choose a clayey soil, whilst we think a sandy one more healthy.

Having settled on the site, you must exorcise any ghosts or spirits who may be in possession of it. In June last year one of the police stations in Madras was to be enlarged. This involved the cutting down of a tree, so a notice was fixed to it calling on any spirit residing in it to depart within three days, as the tree was to be cut down.

There are two kinds of spirit-ghosts in India which are the wandering souls of men who have met with violent deaths, or have not had their funeral ceremonies properly performed. The latter are the more dangerous, but you may recognise them by their having their feet turned backwards, and take necessary precautions. The ceremony of exorcising them begins with the beating of drums and ringing of bells for eleven days and nights. Anybody who has suffered from a Hindu drum for one day and night will believe that at the end of eleven days and nights any god, man, or ghost would be quite ready to leave the place.

After final marriage, in the great majority of cases, a man takes his bride to his father's house, and she becomes one of the joint family; for in India the family is really a patriarchal corporate body, of which the father is the head, and all the sons, grandsons, etc., and very often the father's brothers, and their sons, are members. The eldest male is the head of the family. He may be the father, or the eldest brother, if the brothers have continued living together after the father's death. The mother, or the eldest wife of the eldest brother alive, is the female head of the house; but all members share the property of the family in common, are responsible in common for the debts of the family or of any member of it; all worship the same domestic gods, all join in the

performance of the memorial ceremonies to dead ancestors, and all are affected by the honour or dishonour of each. A member may be as lazy and selfish as he likes, he may do no work, he may incur debts, yet he is still entitled to his share of the common family property, which includes the earnings and savings of his industrious father and brothers; but if he be a gambler, or an open evil liver, the rest of the family may repudiate him under certain circumstances. The paralyzed, blind, insane, etc., must be kept by the family members; but if the family decides to divide the property on the death of the father, they are not entitled to share. The heirs are, however, expected to keep them, and as a matter of fact it is not found necessary to have such State charities for the Hindus as our workhouses. Family feeling and private charity provide for all. During the life of the parents the sons cannot claim a division of the property, but on their death they may claim their share, and separate. In such a case they divide the family idols amongst them, which is considered the mark of final separation. Until the British introduced the Wills Act, there were no wills amongst the Hindus, the property passing to the lawful heirs in fixed proportions, the heirs being those entitled to perform the funeral ceremonies for the deceased, which will be described later. A woman did not inherit unless the deceased had no sons.

All members of a family are not bound to live together. A son of a country family may go to live in Bombay, but he is still part of the family, and responsible for its debts, unless he has been given some of the family idols, and has begun private domestic worship on his own account. If he has not received these idols he may have a personal worship in Bombay, but is still under the care of the domestic gods at his old home.

The full family worship is arranged on the idea that the god is an honoured guest, and all courtesies are paid to him as to a guest. They consist of sixteen ceremonies, of which the following are the chief:—Offering a seat; giving water to bathe; giving the sacred thread; feeding; giving flowers and perfumes; and making petitions. All these steps are accompanied by the recitation of passages from the holy books by the family priest, or by the father if he be a Brahmin. A non-Brahmin father may recite certain passages from the scriptures, but he cannot conduct a proper service. All members of the family may join in the worship if they like, but it is not necessary, as what is done by the head of the family or by the family priest alone, is done for all. Nowadays, commonly the priest does all the ceremonial without any members of the family being present.

From this elaborate ceremony there are all degrees of worship till you reach what is probably the most common amongst the non-Brahmins, that is, bathing, raising the hands to heaven, and pronouncing the name of God, without anything that can properly be called prayer.

We will now consider the home customs of an ordinary middle-class family consisting of father, mother, sons, daughters, and daughters-in-law.

The father is head of the house, and owns his wife and children, and all their property, for Manu, the great Hindu lawgiver, whose works form the basis of the Indian social system, says: "Three people have no property—a wife, a son, a slave." He also says: "Day and night must women be made to feel their dependence on their husbands. A husband must be continually revered as a god by a virtuous wife." The wife is the indoor head of the family, and is responsible for all the housekeeping duties which fall to the share of

mothers in this country. In spite of the superiority of men as taught in the above passages, sons are taught to pay the greatest reverence to their mothers, and to obey them in all things; in fact, the importance of respect for mothers is impressed on the rising generation in the great poems, the holy books, and by family training, to a greater extent than is the case with most European nations. Of course, the daughters and daughters-in-law are immediately under the supervision of the female head of the house, a supervision which is much more severe on the latter than the former, the Hindu matron being more inclined to overlook little indiscretions on the part of a daughter than of a daughter-in-law.

The regard in which wives were held in the old times was very high, as will be seen from the following passages:—

A wife is half the man, his truest friend,
Source of his virtue, pleasure, wealth—the root
Whence springs the line of his posterity.

A loving wife is a perpetual spring
Of virtue, pleasure, wealth; a faithful wife
Is his best aid in seeking heavenly bliss;
A sweetly-speaking wife is a companion
In solitude; a father in advice;
A mother in all seasons of distress;
A rest in passing through life's wilderness.*

These are quotations from the great semi-religious poem, the *Mahabharata*, written about B.C. 500; but making due reductions for poetic flowery language, there are still to be found Hindu husbands who would support the opinions expressed.

When the family is assembled the female head of the house may speak to anybody, as she is the housekeeper

* See *Indian Wisdom*, by Sir M. Williams.

and has to discuss all matters of business with her husband and sons; but the wife of a son, even if the mother of two or three children, may not speak to her husband in the presence of his elder relations. She may speak to her children, but it would be considered very forward of her to address her husband. If the son and his wife go to live apart she may then converse freely with him in the absence of his elder relations; but she must never mention his name. Even at Courts of Law, if a wife is asked the name of her husband, some friend says it for her. The Holy Books say: "A husband must not eat with his wife or see her eating." And it is considered improper for a husband and wife to go for a drive together for pleasure. The first time that the Maharaja, to whom I was doctor, went for a walk with his wife in the Palace Gardens, the old ladies of the Court made a great fuss, although the Maharaja was so unorthodox that he always joined his wife at the evening meal.

In families where the ladies are kept strictly concealed a man's wife may not be seen even by his elder brothers, though his younger relations may see her, and he in his turn cannot see these younger brothers' wives. The Maharaja, to whom I have alluded, kept up this custom strictly in India, although he was so unorthodox in the matter of seeing his wife eat, and had brought her more than once to Europe where she had been seen by men. This one instance will serve to illustrate the mixture of rigid orthodoxy on some points with laxity on others, equally important or unimportant, which characterises the present condition of Hindu society.

At meal times the orthodox father and sons will not dine with the ladies of the family. In the poorer homes the wife must wait on her husband and do all for his com-

fort, eating afterwards what he has left. In richer houses, where there are plenty of servants and rooms, ladies and gentlemen may eat at the same time, but in separate rooms; but if the mother is observant of her duties she will always superintend the meals of her husband and sons personally if they are dining without guests.

The meals in most Hindu houses are only two in the day, resembling each other pretty closely in material and manner of serving, and after each the diners chew betel-nuts, betel-leaves, and spices, which are supposed to assist digestion and strengthen the teeth.

After the morning meal the men smoke, or go to their offices, shops, farms, or sports, according to their position in life, very much as in this country. The ladies, if of high social position, unfortunately, have a very narrow range of occupations, but the ordinary middle-class Hindu woman does not lead the life of absolute laziness and uselessness which has been so often described. If she is the head of a family, she has plenty of work in superintending the household arrangements, looking after stores of food and clothing, and preparing food for her husband and sons, for amongst what may be called the lower middle-class the wife is frequently the only cook, and even in the upper middle-class the wife frequently either cooks herself or closely superintends the cooking and the work of the various servants.

Other occupations of ladies are, looking after their children, reading or hearing read the great epic poems or the many poetical dramas, doing needlework, in which some are very skilful, games of chance and skill, visits from and to lady friends, religious ceremonies, and hair dressing and toileting. As regards needlework, one of the earliest, if not the earliest fashionable lady, who engaged in commercial transactions on her own account, was the

celebrated Noor Jehan (Light of the World), the favourite wife of the great Moghul Emperor, Jehangeer. This lady was of unparalleled beauty, and was at first the wife of an Afghan noble, who himself was one of the brightest gems of Jehangeer's Court. On one occasion he fought, without any weapons, and killed a tiger, and in all feats of courage and skill he was first. In the end the brave Afghan fell a victim to the Emperor's treachery, and his widow was removed to apartments in the royal harem, where, however the Emperor would not see her. Here she remained for some time, spending her days in all kinds of embroidery, which became the talk of Delhi and Agra, in so much that the fashionable ladies of those two cities would only wear garments of her designing on grand occasions. She always wore the simplest things herself, but attired her attendants in the most gorgeous. She was, in fact, the Madame Louise for the time being. When the Emperor Jehangeer had got over his remorse for causing the death of her husband, he married her, and she became one of the most powerful Queens the world has known.

We have now the son-in-law of the most powerful Queen of this day designing wall papers and house decorations, but he and the fashionable ladies who have taken to keeping shops can point to royal precedent dating back to the year 1620, A.D.

We are too much in the habit of thinking that all Indian women live a life of quarrelsome laziness, or misery and oppression, what we are accustomed to call the "Zenana life." I do not wish for a moment to deny the truth of all that has been written about that sad condition, or to question the value of the excellent work that is being done by the Zenana Missions; but I think that in our horror at the thousands of unhappy wives we are apt to overlook the existence of thousands who

are not unhappy, and other thousands whose married life is as happy as that of any wives in this country.

It is true that in many Indian houses the wife is the slave or the plaything of her husband; but let us think what an Indian enquirer might write of our own country. He might truthfully write: "In Liverpool it is considered that a man has a right to beat and kick his wife. If he only drinks himself mad on the day before the Christians' holy day, but remains fairly sober the rest of the week, he is regarded as a good man. The feeling that a wife is the property of her husband is so strong that the onlookers will not stop him beating her unless he is in danger of killing her, and if a stranger interfere the wife will assist the husband in beating the stranger for coming to her assistance." If an intelligent foreigner should write this his account would be absolutely true, but only of a section of Liverpool society, it would not represent the ordinary married life of Liverpool correctly.

It is true that a Hindu wife may not eat in the presence of her husband, but it is also true that many English husbands may not smoke in the presence of their wives, and in judging of the hardship or otherwise of these matters we must remember that it is very easy to get wrong impressions, as wrong as those of the Punjaub villagers, who believe that Englishmen eat everything raw, that they never bathe, but only wash their faces carefully, that after marriage they give up all connection with their parents, and that they immerse their infants in a tub of brandy daily till they can walk.

Of late years ordinary education has been added to the occupations of a woman's life. Formerly it was supposed that a woman who learned to read and write would become a widow, but that superstition has passed away in all the towns and most of the larger villages now, and education

is being extended to women both by missionary and secular agencies. The Maharaja of Baroda has established "Zenana Classes," that is, classes specially for ladies who may not be seen by men, as distinguished from the ordinary girls' schools; and last December there was a gathering of 1,200 girls and 75 Zenana ladies at a prize delivery and exhibition of fancy work, cooking, drawing, etc., presided over by the Maharaja's wife—a spectacle hitherto unknown in Western India.

Let us now pass to the closing scenes of a Hindu's life. It is considered a most meritorious thing to die on the banks of the holy river Ganges, and thereby secure a speedy passage to heaven. Accordingly, when all hope of recovery is over, a dying man in its neighbourhood is carried, amidst cries of grief from mourners genuine or hired, and loud repetitions of the names of various gods, to a place at the edge of the river. He is exposed to changes of weather, and if his relations are pious enough, is immersed in the sacred stream to wash away his sins. Water is also poured down his throat for the same purpose, and if these measures hasten death one can hardly be surprised. In places away from the Ganges the dying man is sometimes taken to the side of a river or lake, and if possible his ashes, after burning, are thrown into the sacred river; but as a safe passage to heaven is not so well assured, people are more inclined to let their dying friends breathe their last in peace. Amongst the orthodox in Calcutta it is considered that all the virtue of a man's life may be rendered useless if his friends neglect to carry him to the sacred stream; in fact, one of the strangest things about the Hindu religion is the way in which all a virtuous man's good deeds may be rendered useless by the neglect of his relations to perform some ceremony or other after his death.

A few hours after death the remains of the Hindu are burned, the body being taken to the burning ground in an open bier made of bamboos. On reaching the ground holy water is sprinkled over it, and the evil spirits are told to slink away. Then the funeral pyre is built so that the head of the corpse, when laid on it, shall point to the south-east. The eldest son, or the nearest relation, after walking three times round it, and repeating certain holy passages, sets it on fire. When the burning is over, the mourners bathe, put on clean clothes, and return home. At the time of the burning, or on the way to the ground, a hymn is said, of which the following is part—a hymn which shows some of the best and purest thoughts of the Hindu religion :—

Open thy arms, O Earth; receive the dead
 With gentle pressure and with loving welcome.
 Enshroud him tenderly, e'en as a mother
 Folds her soft vestment round the child she loves.
 Soul of the dead! depart; take thou the path—
 The ancient path—by which our ancestors
 Have gone before thee.
 Leave thou thy sin and imperfection here;
 Return unto thy home once more.*

Before entering the house on his return, the son makes the first *Shraddha*. A *Shraddha* is a ceremony by which the spirit of the deceased is to be benefitted in some way, those first performed being to give it a bodily covering suitable for the land of spirits. The offering which is made consists of a ball of rice, with spices and holy water, and in some parts of the country a thread is given after the food, to help to clothe the new body.

There are certain people who should not be invited to assist at the actual *Shraddha* ceremony, though apparently they may share in the accompanying festivities;

* See *Indian Wisdom*.

and it is sad to see the medical profession amongst those excluded. These are thieves, spirit-drinkers, atheists, physicians, dancers, and persons with diseased nails and teeth. It seems strange that the last two should be excluded, but the reason seems to be that a man who has stolen gold from a Brahmin in one life will have diseased nails in the next, and one who drinks intoxicating liquor in this life will have discoloured teeth in the next.

Each day, for ten days after cremation, the offering must be repeated, the number of balls increasing daily; and if this food is not provided, the spirit will wander about as a restless, unclad ghost.

A curious story is told of a British officer who was wounded at the siege of Seringapatam. His servants were carrying him to the coast, when he died. As he had always been good to them they tried to do what they could for the peace of his soul; but it was no use offering balls of rice with native spices, as that was not the food an English spirit would care for. After much discussion it was decided that the offerings must be the things most desired by an Englishman during life, so the kind servants fed their master's spirit for ten days with brandy and cigars.

Mourning lasts for ten days in the case of a Brahmin, for thirty-one in any of the other castes, which from their lower position require more mourning than Brahmins. During these days the relations are unclean, they may not shave, there are various restrictions in dress, and only one meal a day is allowed. As all this is very irksome there are many little dodges for shortening the time. A Brahmin friend of mine received one morning a letter, on the outside of which was written, "Do not open this till 11-30 p.m." He knew at once that it was the announcement of a relation's death, and that he would

become ceremonially unclean as soon as he had read it. He opened it at 11-30 p.m., and from then till midnight counted as one day's mourning. At the end of the days the mourners bathe, are shaved, and purified, and then Brahmins, relations, and holy beggars (or unholy beggars as they often are) are feasted and receive presents. The cost of these "Shraddha Feasts" are often enormous.

The most gorgeous one on record is that performed by a rich Calcutta gentleman after the death of his mother. It is said to have cost £100,000. The ceremonies, feasting, and giving of presents lasted two months, during which learned Brahmins and all comers were treated with boundless liberality, in return for which they prayed for the peace of the old lady's soul and for her happiness in the next birth. In this case the giver of the "Shrad" was as rich as Cræsus, but in middle-class and poor families the expenses of these feasts with those of marriage often plunge the families into debt from which they never escape. It is said by some that the great majority of the agricultural labourers live practically in a state of serfdom to the money lenders, the debts incurred by one member of the family falling on all members and descending from generation to generation.

There is nothing wholly bad in the world, and the redeeming feature of these costly entertainments is that the poor share in them. I have been told that in a large town where there are numerous weddings, mournings, or celebrations of some sort every day, the poor and helpless practically can always get at least one meal a day, and that in a hot climate with a lazy life is enough for all necessities. The trouble is, that this form of out-door relief falls unequally on the paying population.

When the great "Shraddha" is over the mourners return to their usual occupations, but every month on the

anniversary of the death for a year a small ceremony is performed for the benefit of the lately deceased, whilst his spirit also shares in the benefits derived from the "Shraddhas" offered to the general body of deceased ancestors. So with the help of its own good deeds, and the loving piety of its descendants, the Hindu spirit passes to Yama, the Great Judge of the dead, to render an account of its works on earth and to receive its reward or punishment.

EVOLUTION OF SANITATION— LIVERPOOL, 1844-1894.

BY E. W. HOPE, M.D., D.Sc.,
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THE daily routine of business falling to the lot of most of us is sufficient in itself to absorb the time and energy of the worker, and hence it is that opportunities seldom arise to enable one to look back through past records to ascertain the directions in which the current of advance has been strongest, and the measures which have proved the most valuable.

It may be that in some forms of business the time taken up by a retrospect would not be adequately rewarded, and it may also be that the records of some callings are so barren as to contain nothing worthy of study or imitation, nothing which may be of use for present or future guidance.

The records of Municipal sanitation, however, are widely different from these, and a retrospect is not only of interest, but of much value, since it furnishes the most useful, as well as the most convenient means for an enquiry into results.

Progressive improvements are the outcome of unceasing effort, indomitable perseverance, and great monetary outlay; nothing can be more encouraging than a consideration of the extent to which, year by year, in the face of great difficulties and much opposition, sanitary administration of cities has become more efficient in organisation, more precise in direction, more successful in results.

The mere saving of life is enormous, and whilst rates of mortality furnish a forcible indication of the changes effected, I doubt very much whether they bring home fully and clearly enough a proper realisation of the full extent of the value of sanitation.

Many overlook the fact that a diminished death rate means a diminished sick rate, since it may be assumed that for every death recorded there have been, say, ten cases of illness of serious character, each of course attended with more or less prolonged suffering, with much anxiety to relatives, with great expense, with loss of time and of wages, and in many instances the actual deprivation of the means of livelihood of the family, and, consequently, poverty and its attendant evils following in the train. Yet Nature is peculiarly adaptable, and there is not the slightest doubt that the "survival of the fittest" is curiously exemplified in city slums, and that the denizens of these slums have in some manner become acclimatised to dirt and foulness, to misery and degradation which would be insufferable to persons newly plunged into them, and who would be very differently affected.

We must first consider at some length what the condition of great cities was some years back, and then glance as fully as time will permit at one or two of the more important developments which have resulted in bringing about such improvements as we see in the condition of great cities at the present day.

Although for many years anterior to the passing of the Registration Act for England and Wales, in 1842, attention had been from time to time directed to the varying incidence of mortality and disease, as soon as that Act had been in operation for a few years the marked difference in the mortality of town and country districts attracted the attention of careful observers.

It became sufficiently apparent that various causes contributed to this difference, the most prominent of those causing the high mortality of towns being the concentration of large numbers of individuals within narrow compass, and the consequent vitiation of the atmosphere of towns; and where this crowding together of a poor population was most marked, a poisonous matter of a highly contagious character became generated,—more especially Typhus Fever,—affecting not only those in whom it originated, but spreading with rapidity from person to person, from house to house, and from street to street. Could the atmosphere in such localities have been renewed from time to time, the evil would be diminished, but from the high value of land in the larger towns, which were the seats of industry, from the desire on the part of builders and landlords to secure the most profitable investment for their money and from the total ignorance or neglect of hygienic principles, the dwellings of the poor were constructed with the most absolute inattention to the means necessary to secure an efficient ventilation either in the houses themselves, or in the courts and streets in which they were erected.

Liverpool was no exception to other towns in these particulars, indeed, it may be said to have been as bad as any.

The population by the census of 1841 amounted to 223,000, 160,000 of whom were estimated to belong to the working classes, and more than one-third of these lived in courts and cellars, the remainder living in houses or rooms to the front of the street.

The courts varied from 9 to 15 feet wide, and having 6 to 8 houses on each side. They were connected with the street by a passage or archway about 3 feet wide, and in the older courts built up overhead.

The houses themselves were three storeys high, containing three rooms one above the other, being back to back, and side to side, with others of similar construction, and so had no yards, or open-air space at the sides or the rears.

The cellars were 10 to 12 feet square, generally flagged, but frequently having only the bare earth for a floor, and sometimes less than 6 feet in height. There was frequently no window, so that light and air could gain access to the cellar only by the door; the top of which was often no higher than the level of the street, consequently the cellars were dark, and ventilation was out of the question. They were generally damp from defective drainage. There was sometimes a back cellar, used as a sleeping apartment, and having no direct communication with the external atmosphere, deriving its scanty supply of light and air solely from the door of the front apartment. The population inhabiting these cellars amounted to upwards of 20,000.

This being the vicious construction of the dwellings themselves, it is surprising to read that the whole of the cellar population were absolutely without out-offices, or place of deposit for their refuse matter. With regard to the courts, certain insufficient out-offices were provided, but these were situated in close proximity to the doors and windows of some of the houses, and used in common by all the occupants of the houses in the court. Whether, on the whole, the inhabitants derived any advantage from them is open to doubt, since they were kept in such an abominably ruinous and filthy condition as to make it a matter of wonder how they could possibly be used at all. They become full to overflowing; their contents finding their way through the mouldering walls which confined them spread a layer of abomination over the entire surface

of the court, and even oozing into the cellars and the rooms where the family slept. There were no drains, and had there been any, there was an entire absence of sewers in the front streets with which they could communicate.

The system of scavenging and cleansing in the streets inhabited by the poorer classes was defective in the extreme, being imperfectly performed by paupers. None of the streets were visited oftener than once a week, and frequently a much longer interval intervened. The courts, indeed, were never visited by the public scavengers at all.

Most of the houses were occupied by two or more families, and many of those on the front streets were densely peopled lodging-houses. This being the case, and bearing in mind the structure and arrangement of the houses, it is not surprising to learn that Liverpool, in certain parts, exhibited the greatest density of population attained in the heart of any English city.

It was in the lodging-houses, where no control of any kind was exercised, that overcrowding was carried to the highest pitch. In every room of such houses, with the exception of the kitchen or common-room, the floor was covered with bedsteads, each of which received at night as many human beings as could be crowded into it, and this too often without distinction of sex or regard to decency. But the cellars, more especially the double cellars, were used in the same manner at night. "The floor of these cellars," Dr. Duncan states, "often the bare earth, is covered with straw, and there the lodgers, all who can afford to pay a 1d. for the accommodation, range themselves as best they may until scarcely a single available inch of space is left unoccupied."

With regard to water supply, it would appear that in 1845, owing to the inadequate supply of water to the city, much mischief had been done to warehouses by fires;

and this circumstance led to steps being taken to procure a better supply of water for the purpose of extinguishing fires. Whilst negotiations for this most desirable object were in progress, a memorial signed by upwards of 5,000 people was presented to the Highway Board (then the Board of Health), pointing out that it was extremely desirable there should also be a constant and abundant supply of water for purposes relating to the health, cleanliness, and comfort of the poorer classes of the community.

From the report of an enquiry into the subject held by the Highway Board, it would appear that water was supplied to the lower districts of the town only at odd intervals, sometimes two or three times a week, and then for periods varying from half-an-hour to an hour, and usually between the hours of six and seven in the morning. Consequently, unless the people went to the supply pipes at those hours to get water they got none at all; and if they did get it they would require to carry home in vessels a sufficient quantity to last them until the next supply was available. And furthermore, that water had to be kept in the unclean dwellings amidst the unclean surroundings that we have already referred to. This water was supplied by two private water companies, the Harrington Company and the Bootle Company, which had agreed together as to the price to be charged for it, which appears to have been at a very high rate. By a practice of these companies, arrears due from a former tenant were frequently charged to a new one, or the supply to the new one was cut off; for example, the water would be cut off from a court of ten houses, because the owner would not pay the water rent due by former tenants. This, no doubt, was an illegal act, but still it was done.

An incident of the mischief resulting from the inade-

quate water supply to the lower districts, was the large number of prosecutions, arising from fights and squabbles amongst the people, in their efforts to get their vessels filled with water during the short time that the supply was available; furthermore, the tap being out of doors, possibly in an adjoining court, a large number of people, fourteen or more, would be seen standing, in inclement weather, waiting their turn to get a supply. Naturally enough this stinted supply induced personal and domestic uncleanness, and there was practically no water at all for washing the exteriors of the courts, even had their occupants desired to wash them; in fact the officers of the Water Company checked such a use of water, actually threatening the inhabitants with prosecutions for waste for so using it. Large numbers of courts were destitute of water, the supply having been cut off for non-payment, and the inhabitants had no other water to use from year's end to year's end, except what they begged or stole from their neighbours.

It is a curious thing that there should have been any opposition to the provision of water for sanitary purposes, but there was, and a very strong opposition, and from well-intentioned men, who believed that needless waste would result, or that it would not be used; and to borrow an expression from one of them, "many of the lower orders, if they had a sea of water, would not avail themselves of it."

As an outcome of the enquiry held by the Highway Board, a mass of evidence was produced showing that dirt of the dwellings, persons, and clothing, was injurious, morally and physically, to an extent which it would be impossible to exaggerate.

It is interesting to observe the condition of the Common Day Schools to which the children were sent.

From the report of Mr. Riddall Wood, who spent some time in investigating the then state of education in the borough, it appears there were some 12,000 scholars attending schools, the condition of which he states, "is wretched in the extreme." He describes them as dark and confined, damp and dirty, and used as dwelling, dormitory, and schoolroom by the teacher's family. Forty of them were cellars. So close and offensive was the atmosphere in many of them as to be intolerable to a person entering from the open air, and the condition was aggravated by filth and offensive odour arising from other sources. I cannot learn that there were any playgrounds.

The schoolrooms were sometimes used also to keep animals in, and Mr. Wood specially alludes to one in a garret, where 40 children were found in a room 10 feet by 9, the room also being occupied by poultry and three dogs. There was only one small window at which sat the master, obstructing three-fourths of the light it was capable of admitting.

"The masters and mistresses," Mr. Wood states, "were generally ignorant of the depressing and unhealthy effects of the atmosphere which surrounded them."

Anyone anxious to study the condition of the great cities a little more than half a century ago, would do well to consult the Reports of "The Commissioners for enquiring into the state of Large Towns and Populous Districts," and they would find that there was but little to choose between the great towns, so far as their sanitary or insanitary conditions were concerned. Others were equally bad as Liverpool, to say worse would perhaps be going too far, but quite as bad, and the condition of all cities was such as to furnish a very fruitful field for the application of hygienic principles, provided that those principles could be agreed upon, that the Legislature

would adopt them, and that means could be found to give them application where they were needed.

Such then, being the condition in regard to what we may call the more rudimentary necessities, it need hardly be said that the idea of adopting other sanitary measures, which we now know to be essentials, but which may be regarded comparatively as refinements, had never been suggested. For example, the inspection of meat and other food, also the analysis of food; the control of bakehouses and places where food was prepared; the examination of dairies and shippens; the control of offensive trades; the suppression of smoke and other nuisances; the control of factories and workshops; and a host of other matters were never contemplated, they were at that time far beyond the range of practical application. But the conditions described, viz., the vicious construction of the dwellings, the insufficient supply of out-offices and of receptacles for refuse and excrementitious matter, the absence of drains, the want of water, and the filth and the overcrowding of the population tended, amongst other evils, to produce one well known and definite form of disease, viz., Typhus Fever, and it is not surprising to find under the conditions described, that 1 person in 25 of the working-class population of Liverpool was annually affected with this disease, and in more than one of certain streets specified, during an average of five years, no less than 1 in 10 of the inhabitants was attacked yearly with fever. Another form of disease intimately associated with the foul conditions alluded to is Phthisis (consumption), and the various forms of Tubercular Diseases, which are always prevalent amongst the inhabitants of dark, filthy and ill-ventilated dwellings, and are the direct outcome of breathing and re-breathing contaminated air. This form of disease was extremely prevalent, and having regard to the noxious state of the

atmosphere, and the effluvia constantly arising from collections of filth, such a consequence is not surprising.

It was in 1842, one year prior to an interesting paper which Dr. Duncan communicated to this Society, that an Act was passed entitled "An Act for the promotion of the Health of the Inhabitants of Liverpool." In 1846, the Liverpool Sanitary Act came into operation, and during the three following years, there occurred the severest epidemic visitations from which Liverpool ever suffered.

The beginning of 1847 witnessed an enormous immigration into the city, owing to the prevalence of the potato famine in Ireland. By the end of June of that year it is estimated that upwards of 300,000 destitute persons had landed in Liverpool. Many passed through to other towns, but it was estimated that some 80,000 had located themselves in Liverpool, occupying every nook and corner of the already overcrowded lodging-houses, and forcing their way into cellars which had been closed under the provisions of the Health Act of 1842. In different parts of the city, fifty or sixty of these destitute people were found in a house containing three or four small rooms about 12 feet by 10 feet, and in more than one instance upwards of forty were found sleeping in a cellar.

Fever, dysentery, and small-pox made their appearance in these crowded quarters, and fever spread with amazing rapidity, thousands of patients being under treatment by the Dispensary and parish medical officers, cases being so numerous as to completely baffle the attempts of the parish authorities to deal with them. Hospital after hospital was opened in different districts of the town. The lazarettoes in the river were, by consent of the Government, converted into hospital ships, and still the cases so accommodated were more than twice outnumbered by those for which no accommodation was

available. In the beginning of May, the epidemic burst through the barrier which had hitherto seemed to confine it to the poorer classes of the inhabitants. It invaded the better-conditioned districts of the town, which had previously escaped its ravages, and, gradually creeping up among the wealthier classes of society, nearly 6,000 persons were destroyed during the twelve months from this cause of sickness alone. In one street no less than 470 persons died from it during the year, being one-third of the entire population of the street.

During the succeeding year, this epidemic came to a close, and the sanitary history of that year, in comparison with 1847, was uneventful, although, viewed through modern spectacles, the mortality even of that year was appalling.

At the very commencement of 1849 a family of emigrants arrived, suffering from cholera. The condition of the city furnished a suitable developing place for such a disease, and during the spring cases became more and more frequent. With the approach of summer, this disease had become epidemic, and in the course of the year no less than 17,000 deaths were registered, of which 7,000 were directly ascribed to cholera and allied diseases. The behaviour of the disease was at that time imperfectly understood, but the conditions prevailing in the city were of such a kind that the measures adopted with a view to checking it were but of little avail.

From this brief account an opinion may be formed of the condition of the city some fifty years ago. Not the least remarkable circumstance was the inertness of the public conscience in regard to matters affecting health, which may be partially explained by the fact that sanitary laws were very imperfectly understood, and the absence of an educated public opinion rendered the magnitude of the

task increasingly great, and tended to make the progress towards improvement slow and laborious.

Among the most prominent of the early reforms, were the much-needed ones relating to dwellings. The construction of dwellings without some regard to air spaces around them, and to the provision of necessary domestic offices, was prohibited; some restriction was placed also upon the occupation of cellars as dwellings; attempts were made to control the sub-letting of houses, and the use of common lodging-houses; the necessity for scavenging and cleansing attracted attention; a system of sewerage was inaugurated; a disinfecting apparatus was established under the guidance of Mr. Newlands, the then Borough Engineer. The institution of public baths and washhouses is also owing to the foresight of the same eminent engineer; and it is noteworthy that places of this class were first established in this city. The water supply was much improved; the Liverpool Waterworks Bill of 1847 resulted in the acquisition by the Corporation of the existing water supply, and such improvements in it as led to the supply being constant. The year 1857 saw the inauguration of the immense undertaking of the Rivington Waterworks. No doubt all of these were but indications of the lines upon which improvement was to be looked for, but at that time they constituted very important steps in the right direction.

The system of *administration* at that time was absolutely deficient, and the *Sanitary staff* wholly inadequate, *e.g.*, in the case of infectious disease, many of the necessary legal powers were wanting, and as for the measures adopted for the prevention and control of sickness of this kind, there were *none at all*, in the wide and provident sense that we now employ them. It is true that when disease, in epidemic virulence, had fallen upon the city,

hospitals were hurriedly improvised with all the defects which must necessarily attend action of this kind which is undertaken in time of panic, and it is questionable whether, when hospitals were provided, they were ever of the slightest *preventive* use, since those who could not or would not be accommodated in them, remained in insanitary surroundings as foci of infection to the neighbourhood.

It would be impossible, in the time allotted, to attempt adequately to trace the evolution of sanitation through successive periods, and I am well aware that the gaps which I am compelled to make deprive the account of much of its interest, and make it almost impossible for you to fully realise the importance of the difficulty of each succeeding step in sanitary improvement. It may be well to pass over the next five and twenty years, a period of uninterrupted, though slow and gradual progress, during which sewerage and paving had been proceeded with; a new water supply had been introduced; improvements were made in the public baths and wash-houses and disinfecting stations, in which Liverpool had been the pioneer as in so many other practical applications of the principles of sanitation; further improvements were effected also in regard to dwellings for the poor and the control of their inhabitants. Important Acts of Parliament had been obtained, giving additional powers for the suppression of conditions prejudicial to health, among them being an exceedingly important Act known as the Liverpool Sanitary Amendment Act of 1864, under which large quantities of the property of the character already described could be dealt with, either effectually by demolition, or certain districts could be dealt with in a palliative way by demolishing the more obstructive of the houses, and so improving the ventilation of the rest, and opening up

courts and alleys by the substitution of iron railings for brick walls.

About this time (1867), the Health Committee, being still dissatisfied with the manner in which the scavenging was undertaken, much as the system had then been improved, determined themselves to undertake the whole of the cleansing operations, including the disposal of the scavenging products, and this, I may say, is one of the most important, as well as the most difficult and expensive operations which can be undertaken by the rulers of a city, involving in a large city like Liverpool the collection, transport and disposal of about a quarter of a million of tons of rubbish annually. Mr. Reynolds, the Veterinary Superintendent, referring to the contrast between the period of which I am now speaking and the present time, states that there were at the time to which I refer (1867), always within the borough something like 64,000 tons of filthy refuse, stored up in ashpits and receptacles, awaiting removal; whereas now, so rapid is the transport, that the amount of refuse accumulating is but a fraction of the foregoing, and is, moreover, of a comparatively inoffensive and almost inodorous character. This indicates that a prolific source of contamination of the atmosphere has been abolished. The success of this measure was much contributed to by the abolition of the old middens and huge ashpits, the mischief arising of which was emphasised by Dr. Taylor, and it was largely owing to his action that they were finally done away with. But to return. The years 1865 and 1866, curiously enough, were in some respects a counterpart of the years 1847 and 1849, inasmuch as those years were years of epidemic visitation, of typhus in 1865 and cholera in 1866. It is interesting to notice the difference in the incidence of these diseases at the two periods. The diseases furnish a

ghastly death roll, amounting, as on the previous occasion, to a tragedy. Nevertheless, notwithstanding that the population of the city had increased from 223,000 to 443,938, the deaths from fever in 1865 were 2,338, which is less than half of what they were in 1847; and the deaths from cholera in 1866 were 1,728, which is one-fourth of the deaths from cholera in 1849.

An extract from the report of the late Dr. Trench, bearing upon this cholera outbreak, indicates clearly points in which the sanitary administration was then defective:—"On Monday morning, the 2nd July," he says, "information was received at my office from the Registrar of Exchange Ward, that a death, certified to be from 'English Cholera,' had occurred on the evening of the 1st, at No. 2 court, Bispham-street. The locality is one only too well-known to the sanitary officers, being inhabited by the lowest of the population.

"The probability was only too evident that in a neighbourhood so squalid and overcrowded, and among a population so indigent and wretched, the spark, if of the true contagious cholera, would burst into a conflagration; therefore immediate efforts were made, both by the relieving officers and myself, to induce the friends of the deceased to consent to the speedy burial of the corpse. The family refused to listen to our counsels, and elected to keep the body until Tuesday, in order that it might be waked during the night watches of Monday. It was laid on a board on the floor of the lower or sitting apartment of the cottage, and in this room, where men and women ate, drank and slept, the orgies of the coronach, embracing the co-operation of scores of people, were maintained, amidst drunken and profane ribaldry, during the day and night. When I again went on the Tuesday morning, to try either by threats or persuasion to hasten the funeral, I

found the whole place reeking with tobacco smoke and with the loathsome and disgusting emanations of drunken unwashed bacchanals. The three houses were crammed with men, women and children, while drunken women squatted thickly on the flags of the court before the open door of the crowded room where the corpse was laid."

Before the end of July, forty-eight persons had died of Cholera within a radius of 150 yards from the court which had been the scene of the ill-timed revelry. There was no Act requiring the compulsory notification of Infectious Disease at this time, and the death certificate was the first intimation of the existence of the disease. At this time the Sanitary Authority had not yet taken up the provision and administration of Infectious Hospitals. This curiously enough was still left to the Poor-Law Authorities. In other words before a sick person could be isolated, either for his own safety or for the safety of the community, that person and his friends must plead destitution, in which case after an inquiry by the Relieving Officer, he would be eligible for removal to the Workhouse; in such cases as that in question, there was no power to compel the removal of persons afflicted with this dangerous form of illness, nor was there any power to remove the dead body, when the person so afflicted had died. Here let me say that I am far from criticising adversely the Select Vestry, which at all times has used its resources for the promotion of the public health in a manner beyond all praise. The duty in question was not properly incumbent upon that body.

There are three charts exhibited, one showing the deaths from all causes during the last 33 years, the others showing the average deaths during each one of three decennial periods from various forms of zymotic disease, and showing that, while there has been a diminution in

all, there has been a very remarkable diminution in some, coming almost to a vanishing point.

With regard to the action taken to remedy the defects in the construction and arrangement of dwellings, the Act of 1842 was designed to prevent the erection of further dwellings of the more vicious type, but the Act of 1864 was the first one dealing in any efficient manner with the courts which had been already constructed. It was then also that some regard was paid to the air spaces about new dwellings, and in after years, regulations and bye-laws more fully dealing with requirements of this description have been acted upon. Meantime a large amount of the old *original* badly constructed property—what we now know as “insanitary property”—has been dealt with in various ways. Much of it has been swept away for city improvements, or by railway companies, warehouse owners, etc., the site in these cases being used for business purposes. A great deal of it has been dealt with by the Corporation, the insanitary area being cleared and suitable cottages or blocks of buildings appropriate to the wants of the working classes erected thereon. From 1864 to 1880 the practice also largely obtained of removing a house here and there, in order to improve the neighbouring ones, but this plan gave no opportunity for rehousing those displaced and after all, was barely palliative of the evil.

Since 1880 the Corporation have dealt with large numbers of these houses by demolition, no less than 4149 having been so dealt with during the last fifteen years, and new streets of cottages, provided with every sanitary requisite, erected in their place.

Turning once more to the water supply, in 1875 every court in the city had its own special stand-pipe, and as everybody knows, in 1893 the then existing supply was supplemented by water from Lake Vyrnwy. We may say

then, that at the present time water for the poorer classes and for sanitary purposes is free and abundant, and there is no reason why for these purposes it should not be as free and abundant as air. No one can complain of it on the score of quality or of cheapness, since it is collected from the hills of Wales, remote from sources of pollution, stored in the lake, conveyed 68 miles, protected from every possible source of contamination, and delivered within our houses at a cost of something less than 1½d. a ton.

With regard to provision for the isolation of the infectious sick, as I have already said, this up to 1884 was left to the Poor-Law Authorities to deal with. Prior to 1884, the City Council made no provision for illness of this kind; such cases were either treated in their own homes, or removed to the Workhouses, some few being treated at the Netherfield Road Hospital. Infectious diseases were then endemic, and periodically assumed formidable proportions, sheds were sometimes extemporised by the Poor-Law Authorities to meet emergencies, but they were almost useless for preventive purposes.

In 1884 a site was secured at Parkhill, and suitable pavilions added from time to time, until the present provision of 300 beds was reached. In 1886 the Netherfield Road Hospital was taken over by the Corporation and subsequently adapted to modern requirements. In 1888 the Grafton Street Hospital was erected and opened for use.

Infectious hospitals, so far as the *patients* are concerned, occupy exactly the same position as the general hospitals do in regard to illnesses of a non-infectious character; but so far as the *community* is concerned they have a vastly more important function, viz., that of checking the spread of infection. The public, generally speaking, are quite alive to both of these advantages, and the consequence is, that the actual number of cases of

infectious sickness occurring in the city tends to diminish, but each year a very much larger proportion of that number is removed for treatment in the city hospital.

We may say, with truth, that the reason why the actual total diminishes, is because a larger proportion do go to the hospitals, and the foci of infection are consequently diminished. Thus, the diseases, the largest proportion of which is removed to the hospital, are numerically the least formidable. In the case of typhus, for example, in the years 1893-4 92 % were removed to the hospital. In the case of smallpox every patient is removed to hospital. In the case of scarlet fever the *proportion* removed is increasing, the actual number of patients in the city diminishing; thus, about 86% were removed to hospital during 1893, and it must be stated that those patients who are removed to hospital recover in a larger proportion than those who are left in their own homes. With regard to smallpox, the great preventive is, of course, vaccination, and no doubt the day will come when this important duty will cease to be an obligation upon those bodies whose chief function is to provide for the destitute, and will be, as it ought to be, an obligation imposed upon the Sanitary Authority, the body responsible for the public health.

The gross result of the expenditure of money and time and pains may be indicated by the following consideration:—

Taking a period of, say, the last thirty years, during which the progress of sanitation was considerable, if during each of those three decennial periods the death rate had remained at 32, the figure which it stood at during the first of them, considerably upwards of 70,000 more deaths would have occurred during this period. In other words, a section of the community of this city now alive and well, numerically much greater than the whole

of Warrington, or almost double that of Southport, would have been dead. That figure also means, roughly, a little over 1 in 10 of the present population, so that but for this change in sanitary administration, one-tenth of any set or section that you think of would have disappeared.

Upon this may be based a calculation of the saving of health, and of added years of useful life with the prosperity and contentment following upon it. That there is still room and need for further advance goes without saying, but it is not now the time to indicate the direction in which that improvement may be looked for.

THE ENLARGEMENT OF THE GEOGRAPHICAL HORIZON, AS ILLUSTRATED IN THE HIS- TORY OF CARTOGRAPHY, DOWN TO THE END OF THE AGE OF DISCOVERY.

By GEORGE PHILIP, JUNR., F.R.G.S.

ANY attempt to trace the gradual growth of man's knowledge of the earth, its extent, configuration, and the relations it bears to the heavenly bodies, must begin with the first glimmering of the geographical instinct in primeval times. For prehistoric man must have possessed a local geographical knowledge, just as in our own day the savage is intimately acquainted with the neighbourhood of his home, whose hill-sides and forests, rivers and lakes supply him with food and protect him from his enemies. This "local geography" is the German *Heimatskunde*, which has been defined by Dr. Rüge as the "sum-total of the individual's imaginative perceptions of the surrounding phenomena of Nature." *Heimatskunde* is the seed out of which has grown the science of geography.

Prehistoric man stood centred in a narrow circle, whose circumference was the limits of his individual experience, and it was only when men began to unite together in settled communities, sharing the same language and customs, that the separate geographical experiences of individuals were gradually fused into the larger geography of the state; and the Fatherland, in the place of the individual, became the centre of the universe.

The belief that one's own country is the centre of the

world—the hub of the universe—has existed at all times. It has been held alike by the Babylonian, the Greek, the Chinaman, the Indian, the Arab, each of whom, moreover, regarded the central point of his country as a sacred spot, the Greek and Indian, indeed, worshipping it as the abode of their gods.

The *Egyptians* were the first civilized race of antiquity whose geographical knowledge extended beyond the limits of their own country. Their annual survey of the Nile, after its periodic inundation, laid the foundation for an accurate knowledge of Egypt itself, which was further fostered by the care of the priests, among whose two-and-forty sacred books were three devoted to the study of astrology, the art of surveying, and geography. Their horizon embraced probably the whole of the Mediterranean shores, and extended eastwards to the Tigris and the mountains of Armenia, and possibly even to India.

It is to the *Hebrews*, however, that we owe the three oldest and most interesting of early geographical records. The ethnographical table to be found in the 10th chapter of Genesis, and probably derived from Phœnician sources, is the first known attempt to classify the races of mankind. The description of the march through the wilderness is the first itinerary we possess, and we can safely assume some kind of topographical map to have been the basis for the division of the Promised Land among the twelve tribes.

The commercial enterprise of the *Phœnicians* extended the horizon for a time, though many of their discoveries were lost to posterity in the fall of Tyre and the destruction of the Carthaginian records. They appear to have traded regularly with India and Ceylon, their colonies were dotted all over the Mediterranean, and even beyond the Straits, and their sailors had passed out

beyond the Pillars of Hercules, Hanno, northwards to the Tin Islands (Great Britain*), and Himilko southwards to the Crocodile River (Senegal), and, according to a tradition mentioned by Herodotus, an expedition sent out by King Necho of Egypt is said to have actually accomplished the circumnavigation of Africa, about 600 B.C.

The *Greeks*, however, of all peoples of antiquity, most widely extended the geographical horizon, and Homer himself was regarded, even by Strabo, as the father of geography.

Homer's conceptions of the universe, which maintained a firm hold on the popular imagination for centuries, were certainly largely derived from Phœnician sources. He conceived the universe to be a circular plane, surrounded by a circumambient river—the Oceanos, a word of Phœnician origin—which fed the seas and rivers, and out of which the gods appeared. Upon the further bank of this environing "ocean," the arch of heaven rested, supported by mighty pillars, guarded by Atlas, and stretching above the clouds.

Clothed in its poetical garb, the Homeric system of the universe, which, it may be mentioned, closely resembles several Asiatic cosmographies in its salient features, was only exchanged for wider and more philosophical views after the Greeks had largely extended their geographical horizon by their commercial enterprise and colonial expansion.

It is impossible to trace the progress of this expansion from the days of Homer, to whom the remote parts of the Great Sea were regions of myth and mystery, down to those of Herodotus, for, as the art of prose writing was unknown throughout the greater part of this period, we

* The Cassiterides, or Tin Islands, are usually supposed to have been the Scilly Islands; the Isle of Wight, however, where the tin trade appears to have been concentrated, is probably the correct identification.

possess no contemporary records beyond a few allusions in the poets. Shortly after the introduction of prose writing, however, about the beginning of the sixth century, we find the geographical knowledge of the time embodied in a map—the first Map of the World. Its author was Anaximander of Miletus (610–547), a disciple of Thales, to whom, with Pythagoras, is ascribed the honour of first teaching the sphericity of the globe, and also the invention of the gnomon, or sundial, for the determination of the sun's altitude. The bronze tablet of Aristagoras, on which was engraved "the whole circuit of the earth, and every sea, and all rivers," and which was taken by him to Sparta about 500 B.C.; the maps of Democritus, Eudoxus of Cnidus, and even of Heccatæus, seem to have been merely what we would now call "new and revised editions" of Anaximander's map.

The sixth century is also remarkable for the production of the first geographical treatise, that of Heccatæus of Miletus (520–500). We only possess, unfortunately, a fragmentary knowledge of its contents in the citations found in other authors. As far as we can learn, his geography, or *Periodus*, described the shores of the Mediterranean, and it displayed some knowledge of the countries bordering the Euxine and Caspian Seas. The description of Egypt was based on the results of personal travel, and from it Herodotus is believed to have copied verbatim much of his information regarding that country.

Many of the speculations of Anaximander, Heccatæus, and others of the Ionian School of philosophers, on the constitution of the universe and the earth's cosmical relations to the heavenly bodies, were severely criticized by Herodotus, the Father of geography and history as well.

Herodotus of Helicarnassus flourished in the middle of the fifth century B.C., and his nine historical books,

named after the Muses, are of incomparable value to the history of geography. In them, for the first time, the veil is lifted from the Orient. Herodotus himself was a great traveller; his journeys extended over Asia Minor, as far as Babylon and the borders of the Persian Empire. He visited the shores of the Pontus Euxinus, and collected information regarding the Danube, Dniestr, Dniepr, Don, and possibly the Volga. In Egypt he penetrated to Assuan and was the first to secure information of the negroes and the great interior rivers.

In the fourth century before our era, the geographical horizon was extended so as to include North-west Europe and India. These immense expansions of geographical knowledge being effected on the one hand by the voyage of Pytheas of Massilia, and on the other by the expeditions of Alexander the Great.

Pytheas, a mathematician and astronomer, described the countries washed by the Atlantic, Iberia, Gallia and Albion, as far as Thule (the Shetland Islands, and not Iceland, as is sometimes assumed); the North Sea, and the Baltic where the much prized amber was found. His observations of the heavenly bodies, the high tides in the North Sea, the Arctic circle where the sun pursues its course without dipping below the horizon, and the northern sea, where "land and water are not separated but an admixture of each other," are among the earliest contributions we possess to physical geography.

The expeditions of Alexander ranged over the whole of South-west Asia, and culminated in the inclusion of India in the *Terra cognita*.* From this time India, and

* The extent of Alexander's conquests is illustrated by the numerous cities he founded, bearing his own name, whose existence to-day, after the lapse of centuries, shews the wise selection of their sites. The more important are: Alexandria in Egypt; Iskanderun or Alexandretta in north Syria; Alexandria in Area, the present Herat; Alexandria in Arachosia, the modern Kandahar.

especially the civilized and densely peopled states upon the Ganges, became the wonderland of the East. The variety of its climates from the snowy Imæus to the tropical southern region, the manifold wealth of its flora and fauna, its luxury and wealth, especially in silk, gold and spices, its varied races with their strange customs, religions, and philosophies, fascinated the western imagination and seemed almost too marvellous to be true.

The premature death of Alexander arrested his plan of despatching Nearchus (who had already, in his famous voyage, explored the south-west Asiatic shores from the Indus to the head of the Persian Gulf) to circumnavigate the Arabian peninsula; and Arrian even ascribes to him the intention of returning to Europe round Libya, a proof that at this period Africa was regarded as a huge peninsula.

The Egyptian Ptolemies carried further the conquests of Alexander. Bringing with them to the throne the culture and the knowledge of the Greeks, they quickly raised Alexandria to the centre of the world, the emporium of commerce, the seat of learning and the sciences. Its famous school of philosophy, its museum, and its library, became world-renowned; and it was therefore natural that in Alexandria geography should first begin to assume something of a scientific character.

The founder of scientific geography was Eratosthenes of Cyrene. Born B.C. 276, for over 40 years he was the custodian of the Alexandrian library, and having at his hand the stores of learning accumulated by three generations of the Ptolemies, and living in the centre of the great commercial mart of the world, he was in a unique position for recording contemporary geographical knowledge.

According to Strabo, he made it his chief object to

“reform the map of the world,” as it then existed, and to this end he attempted the measurement of the length of a degree. From Syene, in Upper Egypt, which he assumed to be under the tropic of Cancer, he estimated the distance to Alexandria, situated, as he thought, on the same meridian, at 5,000 stadia, and then, measuring the shadow of the gnomon at Alexandria, he ascertained the arc of the meridian cutting the two places to be the one-fiftieth part of a great circle of the sphere, such a great circle being, therefore, 250,000 stadia = 25,000 geographical miles, a close approximation to the truth.

Aware that his figures could only be approximate, he added 2,000 stadia to allow of the sub-division of a great circle into 60 equal parts, and thus having established the dimensions of the globe to the best of his ability, he proceeded to the question of the area the *Ecumena* or inhabited world should occupy on his map of the world; for the ancients conceived the *Ecumena* as filling about a third of the northern hemisphere, the extreme north being in their view too cold, the south too hot to sustain life. The possibility of a southern inhabited region beyond the torrid zone, or the existence of countries beyond the ocean were matters generally of mere idle speculation, though we know Hipparchus believed in a southern continent, and Pomponius Mela actually projected one on his map of the world, calling it Antichthones, and joining the island of Taprobane (Ceylon) to its eastern flank.

Eratosthenes computed the length of the *Ecumena* from east to west at 78,000 stadia (=156°), the width from Thule to the Cinnamon Land at 38,000 stadia (=76°). The equatorial circumference having been determined at 250,000 stadia, it was easy to calculate that of the parallel passing Rhodes and the Pillars of Hercules at 200,000 stadia, and afterwards to derive the length of the world

along this parallel at a little over a third of the circumference of the world. The remaining two-thirds he conceived to be filled by the ocean, and he states his conviction, a remarkable foreshadowing of those of a much later date, that did the vast extent of the Atlantis not preclude the attempt, it would be possible to sail along the same parallel from Spain to India. Arrived thus far, Eratosthenes laid down a main parallel, which roughly corresponds to that of 36° north latitude, passing through the Straits of Gibraltar, and this he intersected at right angles by a primary meridian cutting Rhodes and Alexandria, and from which he measured off his other meridians.

I have dwelt thus fully on the mathematical basis of Eratosthenes' map, because it was the first attempt to introduce scientific principles to the aid of cartography, and thus constitutes an important landmark in the development of map-making.

Eratosthenes generally accepted the information of Pytheas regarding Northern Europe, but the whole of the Mediterranean was well known to him, as well as Egypt, the knowledge of which had greatly advanced under the Ptolemies. The Nile he described as far as the Isle of Meröe, which he knew to be situate at the confluence of two great rivers (the Blue and the White Nile), and its annual inundations he correctly assumed to be caused by the tropical rainfall on elevated regions in the south-east. He named the Nubians for the first time, and though it is not clear if he knew of the traditional Phœnician circumnavigation of Africa, he certainly conceived it to be surrounded by the sea. His knowledge of India was unsurpassed by that of any geographer down to the time of Strabo. It was bounded on the north by the long wall of the Indian Caucasus, the Indus flowed south, and the

Ganges due east to the ocean. Taprobane he placed seven days' sail from the mainland, and gave it an extent from east to west of 8,000 stadia. Of Arabia, he possessed singularly accurate information. He assumed the ocean to surround the northern shores of Europe and Asia, and believed the Caspian communicated with it just as the Persian Gulf does with the Southern Ocean.

Into Eratosthenes' incursions in the domain of physical geography—the configuration of the earth, the physical grouping of mountain systems, the displacements of the continents—I have not the time to enter.

The cartographical labours of Eratosthenes were completed by the great astronomer, Hipparchus, who conceived the idea, afterwards in part realized by Ptolemy, of constructing a map of the world in which the longitude as well as the latitude of every important position should be laid down as determined by careful astronomical observations of the heavenly bodies. This great effort of human intelligence, which for the first time permitted every step towards a wider horizon to be accurately and permanently recorded, is the coping-stone of Greek cartography, and henceforward geography moves onward hand in hand with astronomy. A scale had at last been found, and the further progress of scientific geography was assured.

Far behind these achievements of the Greeks were the contributions of the *Romans* to geography. Their efforts to turn the inhabited world into an *Orbis Romanus* certainly led to a wide extension of the horizon, especially in north and western Europe, where the conquests of Julius Cæsar and his successors opened up a new world. But they were content to conquer and Romanise the new countries, and left the geographical results to be taken advantage of by Greek men of learning. The only Roman

map handed down to posterity is the famous "Peutinger Table," which, though invaluable as a topographical record of the Roman empire, is, strictly speaking, no map at all, for it is innocent of any regard for relative position or correct area, and is in fact merely a diagram of the stations and measured distances along the military roads and on the coasts.* There is no doubt that Agrippa's map incorporated the results of the survey of the Roman empire started in 44 B.C. by command of Julius Cæsar, the carrying out of which was confided to four Greek geodeters, and finished in A.D. 19.

Out of the wreck of the Roman overthrow by the in-pouring Germanic hordes, when so many precious records must have been lost, the works of Strabo and Ptolemy, two geographers of the first and second centuries respectively, have been saved, and form the chief sources out of which we can best reconstruct the geographical horizon of antiquity.

The seventeen books of Strabo's geography, Humboldt says, "surpass all the geographical writings of antiquity, both in grandeur of plan and variety of material." His geography was finished about A.D. 19, and was based not only upon all the works of previous Greek historians, but also on his own very extensive travels, which ranged from Armenia to Massilia, and from the Black Sea to Ethiopia. It was the first attempt to systematise the geographical knowledge attainable at the time, and was compiled rather for what we would call the general reader than the specialist. Perhaps this was the reason he attached so exaggerated an importance to the geographical knowledge

* Kiepert considers the *Tabula Peutingeriana* to have been based upon the "Wall" map executed by Agrippa for the Emperor Augustus, and exhibited upon a Roman portico, and subsequently reduplicated for the larger towns of the empire, but this view has been recently contested by Dr. Philipp, who regards it as the original of the mediæval "Wheel Maps."

of Homer, for he discusses the traditions of the heroic age with the same seriousness that he devotes to the facts of historical achievements. Notwithstanding this credulity, he treats the work of Herodotus with contempt, and rejects the voyage of Pytheas to north Europe as a compilation of fables. His geographical horizon extended in the west to Spain, in the east to India, Scythia, Celtica, and Ierna to the north, and Ethiopia to the south.

I come now to the last and the best known name in all the annals of ancient geography, Claudius Ptolemy, a man whose writings exercised a more profound influence than any others on succeeding centuries. He lived at Alexandria about the middle of the second century, and, like Eratosthenes, set himself to reform the map of the world.

Before dealing with his system of geography, the map of his predecessor, Marinus of Tyre, deserves mention, as Ptolemy frankly admits to have generally made use of its information. Marinus was the first to really adopt the scientific principles of map-making advocated by Hipparchus, but, unfortunately, he adopted Posidonius' measurement of the earth's circumference, namely, 180,000 stadia, instead of the more correct computation of Eratosthenes, and thereby reduced the length of a degree from 700 to 500 stadia. This initial mistake, which was followed by Ptolemy, vitiated to a great extent the accuracy of his work. Another and more disastrous error was the enormous enlargement Marinus gave to the width of the inhabited world. A considerable trade had sprung up between the Romans under the empire and the land of Serica, the silk-producing regions of eastern Asia. Marinus possessed an itinerary route of a Macedonian trader, called Maïs, of the overland highway of commerce along which the silk was carried, which led him enormously to distend the *Ecumena* eastwards, and to con-

clude the total length of the inhabited world to be 112,500 stadia, or nearly two-thirds of the whole circumference of the earth.

The work of Ptolemy is divided into eight books, the first an introduction devoted to general principles; books II-VII a tabulated list of names, giving in each case the latitude and longitude in degrees and parts of a degree; and book VIII an explanation of the best way to sub-divide the map of the world into separate maps, and advocating a series of 26—ten to Europe, four to Africa, and twelve to Asia. This selection of maps was strictly adhered to in all the subsequent editions of the Alexandrian geographer during the middle ages, and forms the original "atlas" of cartography.

In the projection of his maps Ptolemy was far in advance of his predecessors, and, indeed, one is in general use to this day. For his special maps he contented himself, as sufficiently answering the purpose, with drawing his meridians and parallels as straight lines, the graduation of the former being governed by the correct length of a degree of latitude about the centre of the map. For his general map, containing 180° of longitude and 80° of latitude, he invented a conical projection, in which the parallels were represented by concentric curves, and the meridians by straight lines converging beyond the limits of the map. This projection he also modified and improved by substituting curved meridians in the place of the straight lines.

I have already mentioned the adoption by Ptolemy of the fundamental error of Marinus' map—its wrong graduation. Its exaggerated extension of the width of the then-known inhabited world he reduced from 225° to $177\frac{1}{4}^\circ$, though he imagined the land to project indefinitely further north and east, and rejected, as did also Marinus,

the idea of an eastern ocean. A far more extraordinary hypothesis, however, was his assumption that the eastern shore of Asia trailed round till it joined the east coast of Africa, thus entirely enclosing the Indian Ocean—a strange theory which had been started by Hipparchus at a time when the knowledge of the eastern sea was confined, but why retained by Ptolemy we have no means of knowing.

Ptolemy, in his introductory book, follows out the ideas of Hipparchus in stating that the basis of a map of the world should rest upon points determined by the most correct observations, and details derived from less trustworthy sources should be fitted to the principal positions as they best can. But, unfortunately, the number of observed positions obtainable for his map of the universe was very scanty, and so, though he clearly grasped the true principles on which a map should be constructed, the means at his command were not sufficient to properly realise his aim; and thus the long lists of places, with their tables for latitude and longitude, hid, by their specious appearance of scientific accuracy, the arbitrary and misleading nature of the data from which they were derived. This absence of accuracy was, however, lost sight of in the Middle Ages, when the name of Ptolemy inspired such reverence as to create a confident belief in the scientific truth of his statements; and we repeatedly find mediæval writers referring to them as to a final appeal.

This great honour is due to Ptolemy, however—that though, as Cowley says, “his theoretical development of science far outstripped his power of its practical application,” he yet realised the scientific mathematical basis of cartography, and left us a permanent record by which we could reconstruct the geographical knowledge of his time.

In the Middle Ages, the history of geography is a melancholy record of degradation, and of relapse to the most primitive conceptions of the universe. As the Roman Empire gradually broke up and fell to pieces, a dark pall settled down upon the geographical horizon, hiding by a black cloud of ignorance and superstition the knowledge which the centuries had brought forth of the heavens and the earth and their cosmical relations to each other. This lamentable retrogression was due less to the disruption of the Roman Empire and the consequent disorganisation of society, than to the bigoted adherence of Christian theologians and dogmatists to the letter of Old Testament texts, and the allegorical meanings they extracted from them. Again the world became a flat disc or plane, the heavens a concave arch, as in Homeric times; and even the primitive hypothesis of a centre or navel of the universe cropped up once more, to hold its place for centuries. Lactantius, about 300 A.D., whose views are characteristic of the period, frankly confesses an utter indifference to any geographical or cosmical investigations. "What would it profit my salvation," he naively asks, "if I were to discover the sources of the Nile, or knew what the doctors were raving about the heavens?" These crude conceptions reached their lowest depth in the *Christian Topography* of a travelled Egyptian monk, Cosmas Indicopleustes by name, who conceived the universe as a flat parallelogram, with the world in the centre surrounded by a circumambient ocean, on whose outer bank men lived before the flood, and over which he erected the crystal cover of the heavens, studded with stars, and shaped on the model of the tabernacle.

Cartography underwent an equal degradation; maps degenerated into the rudest diagrams, innocent of projection or the slightest attempt at accurate delineation.

Ptolemy was utterly forgotten, and in the place of his cartography based upon mathematical and astronomical knowledge, the so-called "wheel" maps came into use, which anyone can reconstruct by placing a capital T within an O. The top stroke of the T was the Tanais (Don) and Nile; the body stroke the Mediterranean, respectively dividing Europe, Asia, and Africa from each other. Jerusalem lay in the centre; Paradise was placed in the extreme east (always shown at the top of these maps), and Gog and Magog in the far north. The ocean completely encircled the land.

The two best-known "wheel maps," the Hereford and Ebsdörfer maps, still shew this primitive crudity of construction in a large degree. Grotesque in outline, with no attempt at a mathematical basis, they belong to two sharply-defined branches of mediæval cartography, but retain sufficient points of resemblance—a resemblance shared by all other "wheel maps"—to allow them to be traced back to a common type which must have existed before the end of the fourth century, and which it is extremely probable, from the internal evidence they offer, and points of analogy to the *Peutinger Table* and its contemporary literature, was the monumental map of Agrippa, placed by command of Augustus on a portico in the field of Mars.

While, however, Christendom was lying under this heavy cloud, the followers of a new religion—that of Islam—were reviving the learning of the Greeks, and once more extending the geographical horizon.

In an incredibly short time after the death of Mahomet (A.D. 632), the followers of the Crescent had carried their arms westwards across North Africa to Spain and Senegambia, and eastwards to Syria, Persia, the Oxus, and India. The carrying trade of the world fell into their

hands, and their ships trafficked regularly for gold on the east coast of Africa as far as Mozambique and Sofala; and utilising Hippalus' discovery of the monsoons, they sailed regularly across the Indian Ocean, and traded with India, Ceylon, the Sunda and Spice Islands, and southern China. Everywhere they converted the inhabitants to Islam; from all parts of the world the faithful paid the compulsory pilgrimage to Mecca; in short, religion and commerce were equal factors in enlarging the geographical horizon.

The early Khalifs were themselves distinguished philosophers, and under their fostering ease, Baghdad became the centre of the world, and the seat of learning. All this gave an immense impulse to the study of geography. The geographical and astronomical works of the Greeks, especially those of Ptolemy, were translated into Arabic, and formed the foundation of Arabic geography; the belief in the sphericity of the globe reasserted itself, repeated efforts were made to arrive at a more correct determination of the earth's circumference, astronomical positions were observed, and the results of commercial and religious expansion were carefully systematized and recorded.

The oldest of the Arabic geographers was Masudi—the "10th century Herodotus." In his writings the hypothesis of a strait separating Africa from a mythical southern continent is shadowed forth, and the sea of Aral appears for the first time. He joins the Sea of Azof to the Northern Ocean, and questions the land-locked character of the Caspian, while by placing the Fortunate Isles (the Canaries) close to India he does away with the Western Ocean.

The cartography of the Arabs never rose above being an imitation of that of the Greeks. Even Edrisi, greatest of Arabic map-makers, and who, after thirty years of travel, settled down at the Norman court of Roger II of

Sicily, based his geographical system on Greek models. His *Delights of the Mind*, a geographical treatise largely explanatory of his map and celestial sphere, is collated from the works of Ptolemy, Strabo and Eratosthenes, with an admixture of eastern astrology; and his map retains the division into seven zones or climates after the Greek plan; the Indian Ocean is partially enclosed, and the Western Ocean is done away with.

The chief service of the Arabs to geography and to science generally, however, undoubtedly was their awakening of the Christian world through the Crusades. Both the warlike and peaceful intercourse of the Christians with the Arabs during the couple of centuries that the Crusades lasted, led to an enormous enlargement and revival of knowledge, for the returning Crusaders carried back with them to all parts of Europe some fragment of Arabic learning, whether historical, geographical, scientific, or artistic. Through the medium of Arab study, an interest in the Orient was revived. The Aristotelean philosophy, the medical science of Hippocrates and Galen was transmitted to Europe. From Arabic translations of *Bartolema*, Ptolemy became known earlier than from the original text. Arabic numerals, arithmetic and algebra, Arabic chemistry, pharmaceutica and systems of physics, Arabic natural history, nomenclature of the constellations, and astrology are some of the debts that the world owes to the followers of the Prophet.

Meantime, while Christendom was lying in darkness, and Islam was conquering a world-wide belt of empire, the horizon was in another quarter temporarily extended by a series of remarkable discoveries, and as strangely contracted again to its former dimensions. It was as if a streak of lightning over a midnight sea had suddenly revealed a distant coast, to be lost to view the moment after.

The *Normans*, who appeared in the northern seas about 500 A.D., had conquered England by the eleventh century, and had wrested the kingdom of the Sicilies from the Arabs by the twelfth, had pursued their meteoric career in other directions also. By the end of the ninth century they had discovered, and to a large extent settled, the furthestmost coasts of the North Sea. They had, further, founded in Ireland, the states of Dublin, Connaught and Ulster; in Scotland that of Caithness; and they had discovered and partially settled the Faröes, the Orkneys, and Shetlands, and the Hebrides. Lastly, in 874, Leif settled in Iceland, where in course of time a remarkable free state grew up, which far surpassed the central European kingdoms in culture, and which spontaneously developed a literature and commerce of its own. A hundred years later, Greenland was discovered and settled by Eric the Red; and shortly after, Björn, sailing to Greenland, was driven far to the south-west, where he discovered a wooded coast free of ice. Leif, the son of Eric, on the news of this discovery, sailed from Greenland to confirm it, and after touching at Helluland (Labrador) and Markland (Nova Scotia), he reached and settled on another wooded coast, (in the latitude of Massachusetts) which he called Winland, because of the abundance of wild grapes.

Hither Thorsteen and Thorfin Karlsefne came, and settled with their entire families, forming the first important European settlement in the New World. Thus, 500 years before Columbus, America was discovered, but what should have been one of the most pregnant events in the history of geography, produced so little result, and was so soon forgotten, that when Genoese sailors visited Iceland, they heard only the vaguest rumours of the lost continent.

The inheritance of the Arabs passed over to the Italian Republics, especially to Genoa and Venice. Genoa, en-

riched and rendered powerful through the Crusades, turned eager eyes to the spices and luxuries of India, and established a lucrative trade with the East. The highway of commerce by Alexandria, the Red Sea and Indian Ocean had become closed by the Mahommedan conquest of Egypt, so the Genoese started on a new route via Constantinople, the Black Sea, through Caucasia, round the Caspian, and through the countries inhabited by Mongols, to Cambalu, the modern Peking, along which the riches of China and even the spices of India were conveyed to Genoa, and thence retailed to the northern Hanseatic League and the prosperous ports of the Mediterranean.

The Venetians, later, driven from the Bosphorus by the Genoese monopoly, concluded treaties with the tolerant Sultans of Egypt and Syria, whose masters they speedily became, and, with the Syrian, Arabian and Indian ports open to their fleets, their Levant trade flourished so exceedingly, that they became the dominant power in the Mediterranean.

Venice, besides becoming the emporium of the world, grew also to be the seminary of learning and art, the meeting-ground of travellers and sailors from the distant seas. Geographical studies were actively pursued, and from Venice were issued most of those famous Portolani or compass charts, the accuracy of which still calls forth our admiration. The use of the compass, which was probably acquired from the Arabs in the thirteenth century, effected a revolution in the art of navigation.

The use of the compass* effected a revolution in navigation. Hitherto it had been almost without exception of

* The compass was first invented by the Chinese, and adopted for the uses of navigation by the Arabs. Whether it was transmitted by them to Europe, or was there rediscovered, is not known. It is first mentioned among European writers by an Englishman, Neckam, at the end of the twelfth century.

a coasting character, mariners rarely trusting themselves out of sight of land; but once in the possession of so unerring a guide as the magnetic needle, they could fearlessly embark on the boundless ocean; and a century sufficed to chart the coasts of the Mediterranean by means of compass bearings.

The first dated specimen of the Portolani we possess is that of Paolus Visconti, 1311. Traces of the old "Wheel Maps" remain in the orientation of the map, the east being placed at the top, and the fanciful delineation of the continents; only the Mediterranean is correctly laid down, and contrasts strangely with the grotesque contours of the remainder of the map.

The Catalan Map is perhaps the most famous of the Portolani. It is specially interesting as showing for the first time the fabulous island of Brazil, one of those mythical islands which the mediæval cosmographers shifted about the Western Ocean at will, and which, later, formed such an incentive to western exploration.

When we examine these Portolani, we at once are struck with their wonderful accuracy, and if we bear in mind that they are based entirely upon compass bearings, without the help of any fixed positions for latitude and longitude determined by astronomical observations to serve as a basis, and that, further, they were compiled, not from a single magnetic survey, but from the efforts of hundreds of mariners working independently of each other, we are bound to admiringly admit that the map makers of Venice, Genoa, and Florence were indeed distinguished marine cartographers.

From Venice then, the seat of learning, the school of cartography, the rallying place of travellers, the emporium of commerce, it was in the fitness of things that the impulse towards the further unveiling of the horizon

should come, which led to the epoch-making discoveries of Columbus and Vasco da Gama.

Among her sons she counted the greatest land traveler of the age—Marco Polo; the greatest of Pre-Columban navigators—Aloiso de Cadamosto; the greatest of map makers—Fra Mauro, the *cosmographus incomparabilis*; three men who were præeminent in spurring on this desire for a wider knowledge of the earth's surface.

Marco Polo had spent over twenty years (1275–98) in his Asiatic travels. He traversed nearly the whole of the continent, and as the friend and adviser of the Chinese Emperor he had unique opportunities of gleanings a fulness of information of the far East. He is the first to give us news of Japan (Cipango), and to prove from actual observation the existence of the Eastern Ocean, thus disposing for ever of Ptolemy's hypothesis of an indefinite extension of the land to the East.

Cadamosto had set sail for Flanders in 1454, and being driven back on Cape St. Vincent, he found a patron in Henry the Navigator, and in the service of that renowned prince he discovered, in successive voyages, the Gambia, Rio Grande, and the Gold Coast, thus leading the way in that remarkable series of expeditions which culminated in Vasco da Gama's discovery of the Cape route to India.

Fra Mauro executed in 1457–59 two great *mappe mondo*—the one for Venice, the other for Alfonso II, the nephew of Henry the Navigator, the former of which is still preserved in the Doge's palace. On it are shewn the discoveries of Marco Polo in East Asia; Permian, the land of the Samoyeds, Scandinavia and Iceland in the north; the Azores, Cape Verde, and the Senegal in the west; Ceylon, Sumatra, and Java, and a southerly termination to Africa in the south.

By this time a variety of causes had combined to make

discovery and exploration—which up till now had proceeded in a somewhat leisurely manner—an art, rather than a mere matter of chance, and there was only wanting an objective sufficiently enticing to induce the bold spirits of the age to accomplish a final and full unveiling of the geographical horizon.

Chief among the causes which led to the improvement in the art of navigation and the consequent great discoveries of the fifteenth and sixteenth centuries, were the introduction of the mariner's compass, the improvement in marine charts, the adaptation of the astrolabe to the requirements of the sailor, the revival of the belief in the sphericity of the earth, the strewing by map-makers of the Western Ocean with the mythical islands of Antilia, Brazil, St. Brandan, Roillo, and San Giorgio, missionary zeal, colonial enterprise, and lastly, and above all, the hope of finding and monopolising a direct sea route to India.

The thought of India, a term which embraced all the lands washed by the Indian Ocean, and even China and Japan, with its untold wealth, stirred to the depths the cupidity and commercial instinct of the Western nations. It was there in the extremest East that the Moluccas were situate, where the air was sweet with the scent of the spices; there were the dominions of the great Khan, in whose ports a hundred ships would be freighted with pepper at one time, and in whose country were 200 cities with marble bridges spanning a single river, and there lay Cipango, which so abounded in gold and gems that the palaces and temples were roofed with plates of gold.

No wonder, then, that it became the ambition of the Portuguese and Spaniards, as, later, of the Dutch, French and English, to secure and to monopolise this lucrative Indian trade. The Portuguese, instigated by Prince Henry

the Navigator, endeavoured to find and establish a highway of commerce to India round the southernmost part of Africa, largely influenced in this direction by their religious fanaticism against the Moors, whom they had only recently driven from their own country, and their efforts ultimately were crowned with success on the arrival of Vasco da Gama in the year 1498 off the coast of Malabar.

The learned Florentine, Paolo Toscanelli (1397-1482), was the first to advocate seriously, as the easiest and shortest route to India, the passage across the unknown ocean. He laid his scheme before the King of Portugal's confessor in 1474, but the Portuguese, engaged in prosecuting their explorations along the coast of Africa, were disinclined to expend any of their energies in another direction, and the idea lay fallow till the genius of Columbus revived it, and carried it out in 1492 to a conclusion undreamt-of in the wildest dreams of fancy or speculation—the discovery of a New World!

The chart with which Toscanelli accompanied his scheme exists substantially for us in the Globe, dated 1492, of Martin Behaim, who is so well known for his adaptation of the astrolabe to the requirements of the mariner. The original Behaim globe Columbus is said to have had with him on his memorable voyage, and on it were shown those fabulous islands in the Western Ocean, which both Toscanelli and the Genoese discoverer believed to be the stepping stones to the Indies.

The Spanish discovery of America was followed in 1500 by the Portuguese landing on the coast of Brazil, along which, in the following year, Amerigo Vespucci, whose name is immortalised in that of the continent he helped to discover, sailed as far as 25° south latitude, and conceived, in 1503, the daring project of seeking the Spice Islands in this direction. The conviction of

Columbus and his contemporaries that he had reached the islands flanking the eastern extremity of Asia was only finally dissipated in 1513, when Balbao, surmounting the Isthmus of Panama, saw with astonished gaze the endless rollers of the Pacific Ocean.

This discovery, which seemed at first to dash the Spaniards' hopes of finding a commercial highway to India, gave rise to the question: Where did the South American continent end? And we find two almost prophetic hypotheses in a couple of charts dated 1515, the one from the hand of the widely-gifted Leonardo da Vinci, no less distinguished as a geographer than as a painter; and the other from that of Schöner. Both these maps shew, firstly, a channel dividing the continent of South America from Florida, a kind of original Panama Canal, which, like its modern counterpart, has never realized itself; and, secondly, a strait separating South America from the fabulous Australian continent, which, about this time, began to assume such enormous proportions. This latter hypothesis was proved to be true by the discovery of the entrance to the Magellan Straits five years later—in October, 1520—by Ferdinand Magellan, and his subsequent successful passage in the following three weeks of what proved to be the longest and most difficult strait in the world. While speaking of Magellan, it should be added that, after this passage of the straits, his voyage lasted a further fifteen weeks over an apparently endless ocean ere he discovered the Philippines, where he met with Arab traders, and found himself at last off the shores of Asia. Here he himself was killed in a fight with natives; but one ship out of the five which had started three years previously ultimately reached Portugal in safety, having for the first time accomplished the circumnavigation of the globe. Its freight, it is interesting to

note, was so valuable that its sale more than twice covered the entire cost of the whole expedition. The voyage of Magellan, the ultimate success of which was entirely due to his daring and determination in the face of mutiny and unheard-of difficulties, will ever remain the highest achievement of navigation in the annals of geography.

We have seen how America, long before its discovery by Columbus, seemed, in the fabulous islands of the Western Ocean, to float in the heated imaginations of cartographers; how they anticipated the strait discovered by Magellan; how they delineated Africa as a huge peninsula long before its circumnavigation by da Gama; and we meet in the sixteenth century with yet another of these prophetic hypotheses in the Fretum Anian, and which forestalled the discovery of the Bering Strait by nearly one hundred and fifty years.

It was one of the axioms of hydrography at this period, that all the oceans should be connected with each other by narrow channels, and hence the assumption of the Fretum Anian, a strait joining the Northern to the Pacific Ocean, an hypothesis which gave the impulse to that long and brilliant series of Polar expeditions in search of the North-west passage in which England engaged, and though the quest was unsuccessful, the Arctic seas proved the training ground of the British marine, where England gained that experience and knowledge of navigation which ultimately placed the supremacy of the seas in her hands.

One of the earliest maps on which the strait is shewn is *Schöners* Second Globe, 1523. We see it vaguely delineated on an anonymous Portolano of the sixteenth century, and in the chart of Aloysius Cesanis of 1574. Mercator's chart gives the name, and so does the map of Petrus Planeio dated 1594, which is a virtual reproduction of that of Mercator.

The knowledge of Australia possessed at this period was so vague and fragmentary, that its discovery can scarcely be said to have been effected till the Dutch voyages of the seventeenth century, and so it lies beyond the limits I have set myself in this survey. It must, therefore, suffice to say that the sixteenth century cartographers imagined the *terra Australis incognita* to be a large continent forming, as it were, an equivalent to the vast land-masses of the northern hemisphere. The earliest indications of this South Polar continent, we find on the globes of Leonardo da Vinci and Schöner in 1515. Later, it is exceedingly clearly shewn on two cordiform maps, dated 1531, by Orontius Finæus, a French cosmographer. We find it also delineated on the maps of Mercator, Plancio, Ortelius, Philip Apianus, and others, and with a greater fulness of detail in the MS. maps of Jean Rotz, 1492, hydrographer to Henry VIII, and Desceliers in 1550, in which the continent is called Java Major, and is separated from Java Minor by a narrow strait.

Thus, at the end of the age of discovery, the general contours of the earth's surface had been disclosed. A new world and a new ocean had been discovered in the West, a new continent in the South East. It was left for modern geography to fill in the details, and this has now been largely accomplished by colonial expansion, by commercial enterprise, by missionary zeal, and, since the days of Humboldt, by scientific exploration.

Everywhere the unexplored areas of the earth's surface are shrinking together, and active efforts are still being made to solve the few remaining problems of geography. Within our own times, the snow peaks and the interior hydrography of Africa, the inhospitable plateaux of Central Asia, the interiors of Australia and South America, and

many of the mysteries of the Polar regions have been unveiled; and the four centuries which have rolled by since the discovery of America leave few great problems for the future explorer to solve.

THE MYSTERY OF LIFE.

By JOHN NEWTON, M.R.C.S.

IN the Eleusinian mysteries of ancient Greece, when the time came for initiating the disciple into the highest degree of their religion, the priest exhibited to him with much solemnity as the grand, the admirable, the most perfect object of mystic contemplation, an ear of corn gathered in silence. And truly, those old thinkers were right. For here was the great mystery of mysteries—the origin of Life—presented in a familiar form as an object worthy of the deepest thought. The tiny seed, buried in the earth, and which appeared to die, had become the source of new life, and had multiplied itself a hundredfold. Who or what was the source of this marvellous power thus visibly displayed? Was not the whole world palpitating with this same life, which assumed a myriad forms and colours in bud and flower, in rivers, and seas, and lands, ever mounting up to man? Who would reveal the *unseen* source of all these phenomena, the hidden life of all this life—ever acting, ever shaping, directing, informing all? Thus was the question presented at once to the neophyte, and his mind became athirst for more knowledge of the great Cause of causes, which is surely the first step to a Religion.

One way in which the problem was approached was

this. The primitive mind conceived of every living thing as animated by a conscious soul allied to his own; a tree, for instance, in all its glory of foliage and blossoms, was regarded as the abode of a spirit. From this belief to tree-worship was but a step, and we have only to recall the ash tree *Yggdrasil* of Norse mythology; the sacred Bo-tree of India, in which the spirit of Buddha dwelt; the trees of Paradise, and of the Revelation, "whose leaves are for the healing of the nations," to realise how important a part this idea has played in the ancient religions. They still present at harvest-home, in some parts of England, a human figure made of ears of corn, once the symbol of the earth-goddess Ceres or Demeter; and our Christmas trees are plainly survivals of tree-worship.

It might be supposed the easiest thing in the world to define what is Life, the thing itself is so common. Well, attempt it, and you will begin to perceive your own ignorance. An old definition is, "The sum of the actions of living things," but this only avoids the difficulty instead of facing it. As one of the latest attempts, let us hear Herbert Spencer's explanation of Life. He says: "It is the definite combination of heterogeneous changes, both simultaneous and successive, in correspondence with external co-existences and sequences." There! we are not a whit the wiser, and such attempts are only a cloud of words to hide our ignorance. And yet we know, oh! so acutely, so painfully, what is meant by Life. Fulness of life has been sighed for, eagerly sought after, in every age. It has been the highest theme of the poet, and the supreme gift promised to the devout under every chief form of religion. All the great actors in the world's drama have been distinguished by their *intense vitality*. What is Genius but the power of making efforts? Or, as another defined it: "Genius is the power of lighting your

own fire—and that fire is Life.” Yes, indeed! we, the less endowed, may well say—

’Tis Life of which our nerves are scant.
Oh! Life, not Death, for which we pant,
More life, and *fuller, that we want.*

What is Life? This supremely interesting question has seemed to approach nearer solution after every great scientific discovery. But never did the hope of being able to penetrate the great secret of life appear better founded than when, among other developments of science, the microscope was invented. The first discoveries thus made between 1660 and 1700 (such as *seeing* the circulation of the blood, which Harvey had only inferred from the valves of the heart and veins), produced a profound impression on the observers. The Dutch naturalist Swammerdam became almost insane at the marvels revealed by his lenses, and at last destroyed his notes, having come to the conclusion that it was sacrilege to unveil, and thereby to profane, what was designed by the Creator to be hidden from human ken. At that time, and until the present century, life was chiefly studied as seen in the higher animals, especially man. These were seen to be built up of a congeries of complex organs, such as the brain, the liver, the heart, the kidneys. And the efforts of physiologists were directed to find out the special structure and function of each organ—the sum total of which was supposed to be Life. In this way the word *organic* came into use as distinctive of living beings. And it was sometimes maintained that mind was simply the proper secretion of the brain, as bile was of the liver! When, fifty or sixty years ago, the improvements in the microscope opened up a new world to the anatomist and naturalist, and a wholly fresh analysis of the structure of living beings became possible, great hopes were entertained that the old method

applied to the new facts would soon solve the riddle of life by revealing the minutiae of structure on which functions depended. A vision of a grand simplicity of organic nature dawned upon their minds. It seemed probable that all living beings were composed of very minute organic units built up into a number of gross organs, the functions of which depended on the arrangement of their constituent units. This was the cell-theory of Schleiden and Schwann, who established the general fact that both plants and animals are built up of minute cells, and that the first starting point of both plant and animal is a nucleated cell. This splendid generalisation is without doubt the greatest discovery as yet made with the microscope.

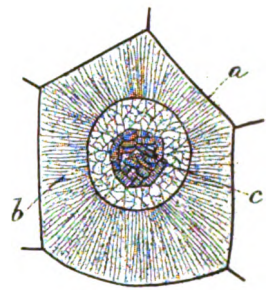
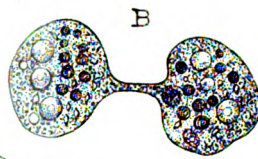
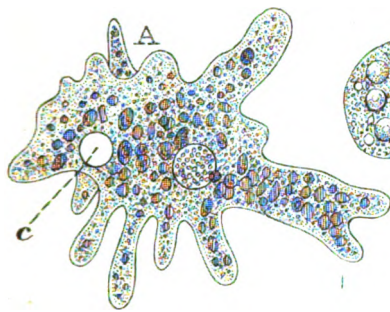
Plate I, Fig. 2, may serve as the plan of such an elementary cell, greatly magnified. *a* is the outer skin, or cell-membrane; *b*, the living matter, or protoplasm, having in its centre *c* the "nucleus," in which the life of the cell and the power of multiplying itself chiefly reside.

Plate I, Fig. 3, represents a vertical section of a portion from the leaf of a plant, magnified 350 times. At the lower edge one of the stomata or pores is seen.

Plate I, Fig. 4, is from the mucous membrane of the human mouth, magnified 1,000 times.

These examples may serve as proofs that both vegetables and animals are built up of cells; and since the highest powers of our microscopes reveal no more, the cell theory seems to bring us very near the innermost mysteries of life.

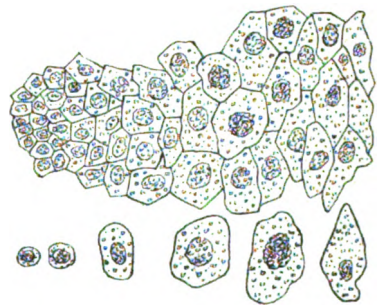
To the cell-theory we owe our conception of the organism as a body composed of protoplasm, the real living matter—and of formed material, the non-living or semi-living framework. The former is the true seat of life, and the latter is produced as a result of its vital activity. The



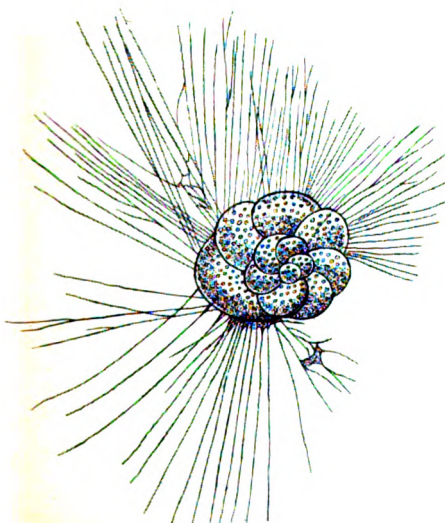
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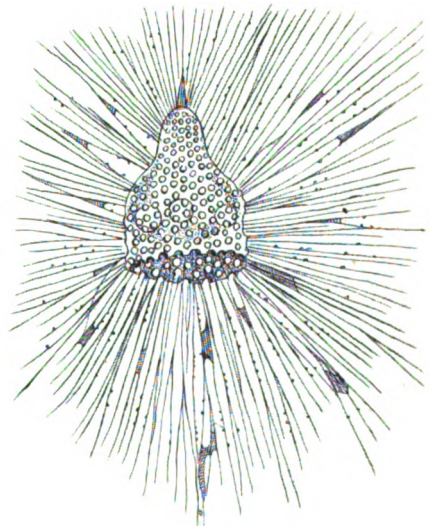
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founders of this theory first showed us that the living structure is usually arranged in, and works through, small structural units called cells, and that the organism is composed of independent or semi-independent individuals associated together in a colony for the common good.

It was observed that the simplest vegetable and animal cells were filled with a substance nearly transparent and colourless, semi-fluid, much resembling the raw white of an egg, which was supposed to be living matter in its earliest, most elementary form, to which the term *Protoplasm* has been applied. Some, as Professor Huxley, have imagined that the protoplasm is the same, whether found in plants or animals, of which we have no proof whatever; and it is otherwise very unlikely. There may be many forms of this elementary living matter, but we cannot analyse it, for it dies at the moment our analysis begins. The most recent researches go to show that the substances taken as food undergo many changes before they become part and parcel of the living body. The matter of a meal becomes reduced almost to its elements before it is converted into living flesh. It would seem as if the qualities of each particle of living matter were of such an individual character that it had to be built up afresh from the very beginning: hence the *construction* which is continually going on as well in the animal as in the vegetable body. This constructive process is an upward series of changes, which may be compared to a stair of many steps, by which the dead food, of varying simplicity or complexity, is, by the vital energy, built up into more and more complex bodies. *The summit of this stair is the protoplasm, or living matter.* Then commences a downward series of many steps or changes, in which these more complex bodies are broken down with the setting free of energy into simpler and simpler *waste products*. This is but a

mere glimpse at the complex process by which living matter has the power of transforming the dead food into its living self,—of creating life from the dead.

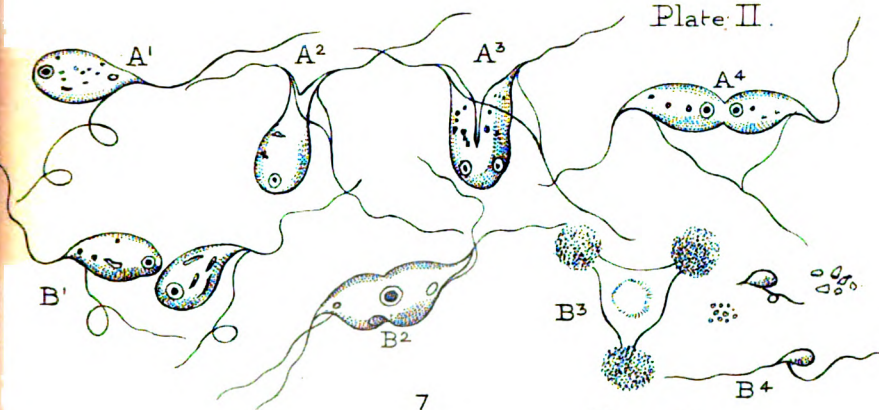
But let me again remind you that nothing that lives is alive in every part. No one would maintain that the shell of an oyster, or a mussel, was, like the moving shell-fish itself, in a living state. Nevertheless, the shell grows, but that growth is restricted to certain points. It grows at the free edge, and on the inner surface, and thus increases its dimensions. By far the larger part of the shell is as lifeless, while it yet remains connected with the living animal, as it is when empty of its occupant and maker. The new matter which is added to it by the living creature, is prepared and formed by the living matter alone. In man and the higher animals, the free portions of the nails and hair, the outer skin, and much of the teeth, are evidently lifeless. But the waste and removal of these is compensated for by the addition of new matter by living particles. Of the internal tissues, a great part, especially the fatty and cellular tissues, is also in a non-living state, though they perform important services of a passive kind, and are connected with matter actually alive.

One of the most elementary forms of life that we can study is that common animalcule found adhering to weeds and bits of dead wood in stagnant water, known to the naturalists as the *Amœba*. It is scarcely visible to the naked eye, but when magnified appears as a shapeless tiny blob of jelly, nearly colourless. Under a higher magnifying power it appears to consist of a granular substance, enclosed in a fine colourless envelope. The *Amœba* is never the same shape for long together. Leave it for half-an-hour and look at it again, it has altered so much as not to look like the same thing. Portions are pushed out from the main body to form

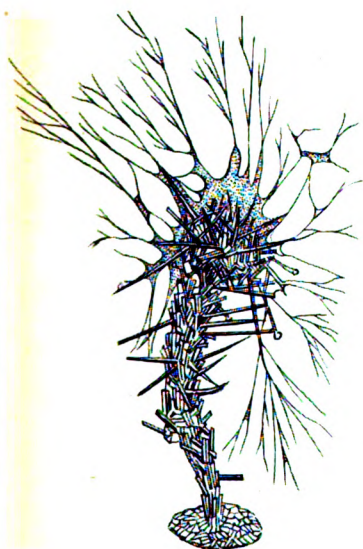
as it were temporary legs and arms, or feelers, these are called pseudopoda, and as the animal does not alter in bulk, every pseudopod put out from the body causes the withdrawal of an equal volume from some other part. These movements alone are enough to show that the Amœba is an organism, a living thing, though we can see *no organs and no parts*. If a solution of carmine or logwood be added to the water, the Amœba is killed, and at the same time becomes stained, then we see under the microscope a round body more deeply stained—the nucleus—and also a clear rounded space which periodically contracts and then reappears during life, like the beating of a minute colourless heart, called the contractile vacuole. But Amœba are found without either nucleus or contractile vacuole, a still more elementary form of life. Sometimes the Amœba makes for itself a horny covering, so that this particle of animated jelly can provide itself with an outer shell. If an Amœba in the course of its wanderings comes into contact with a still smaller organism, such as a diatom, or a desmid, it sends out pseudopods which gradually creep round the prey and finally unite on the other side of it. Now, if watched, it will be found that the swallowed organism is digested, and nothing left but the case or cell wall in which all diatoms are enclosed. Finally, the Amœba, as it creeps slowly on, leaves this empty case behind, and gets rid of what it has no further use for. It is thus able to move and seize its prey without limbs, to swallow, digest, and finally expel the residue without either mouth, stomach, or anus. It has also secreted gastric juice sufficient to dissolve its prey, and the nutrient matters have been circulated and converted into the living substance of the Amœba. What more does it need? Well, another function is required. Amœbæ are liable to perish in many ways, and therefore,

it must reproduce itself. This it does very simply. The nucleus first divides into two, then the whole organism elongates, the two nuclei travel away from one another, a furrow appears across the middle of the body, this deepens, till finally the animalcule divides into two separate *Amœbæ*, each provided with a nucleus. Two forms of the *Amœba* are shown in Plate I., Fig. 1. *A* is a living specimen, magnified 300 diameters. It has thrown out numerous pseudopoda in search of food. *c* is the contractile vacuole. *B* is an *Amœba* in the act of multiplying by dividing into two. Here, then, we have a particle of animated jelly, which selects and captures food, which thinks without a brain, moves without legs, swallows without a mouth, digests without a stomach, circulates its nutrient fluid without a heart, and multiplies itself without sex.

But, even this is seen in the extremely minute form, studied so laboriously by Dr. Dallinger, as swarming in an infusion of cod's head, allowed to stand until it smelt. A drop of this fluid under the microscope was seen to teem with minute organisms in rapid motion. Plate II., Fig. 7, represents the life history of one of these forms. It is only $\frac{1}{3000}$ inch in diameter, and is called the Springing Monad, or *Heteromita Rostrata*. As delineated at *A*¹, it is an oval body of colourless protoplasm, containing a nucleus, and having two flagella, or whiplike appendages, the hinder one by which it propels itself along, the one underneath by which it springs, and which it uses sometimes to anchor itself by. It multiplies in two ways—as represented at *A*¹, *A*², *A*³, *A*⁴, by simply dividing into two, the first appearance of division occurring in the nucleus; at *A*⁴ the division is almost complete. This is the usual mode of reproduction. But a sexual mode by conjugation sometimes occurs, as represented at *B*¹, *B*², *B*³, *B*⁴. A



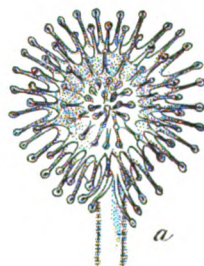
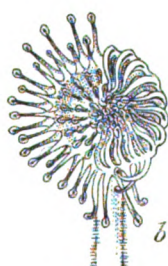
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8.



9



10

free swimming form, B^1 , approaches an anchored form, the two coalesce; B^2 , a triangular form, is the result, which, after remaining quiescent for a time, bursts at its angles B^3 , and emits three little clouds of spores, which rapidly grow and ultimately assume the perfect parent form as shown, B^4 .

Well, I have now brought before you some of the lowliest, most elementary forms of life, which the microscope has revealed to us, and it does not seem likely that we shall ever get much lower. Yet we have seen, even in these minute particles of animated jelly, enough to prove that with life comes a mode of intelligence sufficient to enable the individual to hold its own in the world. All living things have the power of independent movement in some degree, of searching for appropriate food, of discriminating between what is good and what is evil for them, of seizing, taking in, digesting and assimilating this food; of rejecting, getting rid of what is hurtful or useless. More than this, they have all a wondrous power of adapting themselves to their environment, that is to the conditions under which they are placed; a *plastic power*, utterly absent, unknown and unseen in all but living things. For instance, they can overcome gravitation. Thus, if seeds are put to germinate in a sieve filled with damp sawdust, the roots at first grow downwards until they have grown through the sawdust out into the dry air, but then the direction of growth changes, and they turn *back* and grow up into the moist sawdust again. We are thus forced to conclude that plants discern sources of nutriment, and make for them.

Let us, as illustrations, describe some of the modes adopted by living things to protect their bodies from injury. The minute jelly-like particles of living matter, which we began by describing, go about the world naked.

This enables them to take in food by every part of their bodies, and to reproduce their kind by the simple processes of budding and of sub-division. They thus come into contact at all points with the medium in which they live, and they need no elaborate scaffolding of bone to support their soft bodies from within, like ourselves and the vertebrata, or armour of horn or bone to protect them from without, like the manifold insect tribes and shell-fish. But a little further advance in organization, and we meet with multitudes of tiny animals that send out fine prolongations from their soft bodies in search of food. These require a protective covering of some rigid material, full of holes to let out their thread-like fingers, and this they provide. Here is the flinty skeleton of one of the Radiolaria, Plate I, Fig. 6, from which you see protruding its myriad arms, "tentacula," or "pseudopoda," as the biologists call them. A vast army of these minute creatures is constantly at work in the sea, building up their tiny dwellings from the flint or sand that they find. A still greater army, the Foraminifera, Globigerina, etc., form their shell-like dwellings from the chalk in the water; and so vast are their numbers, that the chalk cliffs on many a coast are mainly formed of the skeletons of Foraminifera which had accumulated for ages at the bottom of the sea—Plate I, Fig. 5, represents a living specimen. Here is one of the Protozoa, which has built up a case for its soft body from sand grains and sponge spicules, and the living protoplasm is issuing from the mouth of this rude shell, and spreading in all directions in search of food—Plate II, Fig. 8. A further advance in house-building we see in the Melicerta Ringens—Plate II, Fig. 9. Here is a tiny creature, which, when barely an hour old, and scarcely $\frac{1}{100}$ inch in length, sweeps from the water its food and the materials for its

dwelling; and which at the same moment, and with faultless accuracy, sorts the one from the other, and both from the mere rubbish, drives away the waste, sends a stream of food down its throat, supplies selected atoms to a brick-making machine in its own body, mixes them with cement, moulds them into bricks, and finally (to crown the marvel) lays the bricks one by one around its body in regular order, so as to form a compact dwelling. The average length of the adult tube is $\frac{3}{10}$ inch, but the American form is larger, $\frac{1}{10}$ inch; one contained upwards of 6,000 pellets, arranged in 240 rows, with perfect regularity. Bone begins to make its appearance in the *Holothuria* and *Synapta*, which strengthen their soft bodies by developing within them bony plates, and were it not too long a task, we might trace the rise of the armour of the crocodile, and the skeleton of the vertebrata from these humble beginnings.

It may seem absurd to claim intelligence for plants. We shall only mention the proofs furnished by those that construct cunningly devised traps and pitfalls to ensnare insects, which they afterwards devour. Of these so-called insectivorous or carnivorous plants, at least 500 are already known. Within this range, however, the variety of mechanism for seizure and absorption of nutrient matter is so great that they have been divided into three classes. In the first group a series of chambers are developed that admit of the entrance of insects, but not of their escape. The second section perform definite movements on contact with the insects to secure them, and to cover them with digestive fluid. The third section have their leaves covered with a sticky secretion, and on these the insects stick and are ultimately digested. Many of these plants bear gorgeous flowers of a pitcher shape, seen from afar by insects, which light upon them, feed

upon the copious secretion of honey at the mouth of the pitcher, and are tempted in. They slip over the smooth waxed sides, and fall to the bottom, whence rows of teeth, projecting downwards, prevent their ever rising. A liquid is rapidly secreted by special glands, like our gastric juice, which rapidly dissolves their flesh, and this is afterwards absorbed by the plant. Of the third kind is the Sundew, whose leaves are covered with a tenacious mucus. Along the edges, and on the surface of each leaf, are disposed about 200 tentacles, like so many fingers standing out. If an insect alight on the leaf, these tentacles slowly but surely seize it, press it on the leaf, which hollows there like a spoon to receive it; and in the hollow gastric juice is secreted, which soon dissolves all that is soluble—the rest, jaws, wings, legs, claws, in time are blown away. A wonderful thing is that these tentacles are not in the least disturbed by the wind, or by grains of sand blown against them, but if a fly touches them a disturbance is immediately set up in the whole fringe of tentacles, and if two insects alight about the same time, the 200 tentacles divide into two groups, each tackling one.

Plate II, Fig. 10, represent three leaves of sundew. *a* is in the ordinary state, with all the tentacles extended; *b* is a leaf with half the tentacles bent over a captured insect; *c* is another leaf with all its tentacles inflexed towards the middle for seizing its prey.

If we ascend higher, and turn to the insect tribes, already we find that some of them have developed highly complex civilizations and forms of government. Take the ants. Well might Darwin say "The brain of an ant is perhaps more marvellous than the brain of a man." They construct elaborate boarding houses, each accommodating many hundreds, which are also factories and stores, provided with stables for the little green insects which they

keep as milch cows, and a number of these anthills are often grouped together, forming a great city. Each of them is provided with entrances, guarded by sentries, and all the ants of the same community are well acquainted and friendly, but any stranger ant they attack and kill. They form extramural cemeteries, in which they bury their dead. Their larva or young they hatch and nurse with great care, keep them clean, and educate them in domestic duties. Nineteen species of ants are known which gather grain, winnow it from the chaff, and lay it up in storehouses as food for the winter. Such are only a few of the marvels to be told of these wonderful insects.

Indeed, throughout the entire world of the living we may find abundant proofs that with life comes a mode of intelligence, sufficient at its lowest to enable the individual to hold its own in the world. Some ideal of happiness there must be, or there would be no clue to their actions, no object in their lives. Some ideal of perfection there must be, for is not the result seen throughout the world of the living. To begin at the bottom of the scale; why do the Desmids, the Diatomaceæ, and the Foraminifera, which are but particles of animated jelly, build themselves houses which are miracles of beauty, though their beauties were unseen of mortal eyes until the microscope revealed them? Has the flower no delight in its own beauty as it drinks in the glorious sunshine, and gives it back in gorgeous colours and sweet perfumes? Or the bird in its own music, as it warbles its song in the season of love? Some ideal of perfection is universally possessed, which could not have been derived from mere utility, and which has resulted in filling the world with an infinite variety of colours and forms and other attributes of surpassing loveliness. Nothing puzzled Darwin more than how to

account for the existence of so much beauty in the world of the living without assuming a principle of design. So he invented what he called "Sexual Selection" to account for it. The peacock is famed for his gorgeous tail. How did this arise? Well! successive generations of peahens were fond of gaudy colours and graceful forms, so they selected for their mates, through successive generations, the handsomest tailed birds—and we see the result. Unfortunately for this theory he has not told us whence the peacock's mate derived her admirable sense of beauty. Besides, myriads of graceful forms exist which have no sex, and which dwell in darkness at the bottom of the sea. Nor is beauty of form confined to the world of the living. The snow crystals, for instance, are grouped together in the most exquisite manner.

The social and sexual instincts, as we have shown, are seen in even the lower forms of life. Yet in these, we have the very cause of all union, all sympathy, affection, and society. Sexual love is the one little bit of romance which occurs in the life of all. For a brief space the heavens open, and a new and a glorified existence dawns. The most selfish acknowledge a second self, and find their sympathies enlarged. Then come all the pleasures of motherhood and fatherhood, of being the creators of new life, opening up a new world of affections outside themselves. Here is, indeed, a tremendous power in its manifold developments, linked with a vast world of life.

And now we come to another attribute of Life—its infinite variety. We know not either the beginning or the end of this wondrous chain of being. We dwell with ever-increasing wonder on the apparently inexhaustible variety of forms in this little earth of ours, new ones being continually discovered. The old idea was that all these were the result of a direct creation six thousand years

ago; that everything was then turned out spick-and-span, like the men and animals in a Noah's ark, and so have continued without change ever since. This explained nothing; yet people were content with it until a few years ago. Now, all is changed. Darwin has swept away for ever this belief in the immutability of species. He has proved conclusively that species are but strongly marked and permanent varieties, and that the highest animals must trace their descent by evolution from lower forms. Darwin thought that he had discovered the origin of all these species in what he called Natural Selection. All life, he taught, is a struggle for existence, and, in the struggle, those forms best fitted to survive are, as he phrased it, "naturally selected." This ingenious theory still lacks proof. It has not been established that one single species ever thus originated. A far more potent cause is at work, which I have already dwelt on—the marvellous plastic power possessed by every living thing, enabling it to adapt itself to its surroundings. The rule may be laid down that a species will remain constant so long as its environment is constant, but no longer. Under new conditions of existence, the organism immediately begins to undergo certain changes in structure, fitting it for its new conditions, and these in time may originate new species, through increasing variation from the original stock. However, no single theory will account for the totality of things, and the Origin of Species still continues a mystery.

How did Life originate? Some would have us believe that a fragment of another planet, teeming with life, was projected on to this earth. But this only shifts the difficulty. Our fathers perceived long ago that sunshine and heat and moisture had much to do with life, and the idea long prevailed that living things were thus often engen-

dered in dead matter. Thus they accounted for maggots appearing in meat, and mites in cheese. Even so late as 1872, Dr. Bastian published a large book, entitled *Abiogenesis; or, the generation of life from dead matter*; and Tyndall and Huxley gave some countenance to the idea. But all Bastian's experiments were repeated, and proved fallacious; and the new science of Bacteriology, necessitating a thorough study of the origin and life history of the minutest forms, has established by overwhelming evidence that Life originates only as the offspring of the living.

Thus it will be seen that the origin of Life remains as great a mystery as ever. Our microscopes enable us to study its earliest appearances and simplest forms. We seem to have reached the extremest limits of observation; yet the riddle of existence remains unsolved. The vital force is unlike every other. It develops heat, chemical and electrical phenomena, yet is none of these, and cannot be generated by them.

We must not omit to mention that theme for constant wonder and admiration—the mutual dependence of the two great kingdoms of nature, the vegetable and the animal, upon each other. The vegetable takes the raw materials of the earth and the air, and forms from them sugar, starch, gum, albumen, and a thousand other substances fitted for animal food. Thus the vegetable world vitalizes, organizes the dead matter, and presents it to the animal, which lifts it to a still higher life.

We have but touched on a few chief points of this surpassingly interesting subject, and yet I must conclude. I have described some of the simplest forms of living matter—seeming but minute points of structureless jelly, yet performing all the functions of living things. And we are driven to conclude that the tissues and organs of our

complex bodies are only certain fundamental properties of the elementary matter of Life thrown into prominence by a division of labour to suit new conditions. How wondrous, then, is Life, which, in its simplest forms holds so many wonders! We have, I think, seen clearly that with Life comes a mode of intelligence sufficient to enable the individual to hold its own in the world. With life comes an instinctive feeling for beauty and grace, which has filled the earth with riches. It is from the world of the living—from Nature—that the artist draws all his best and most fruitful ideas. Whence come they? There can be but one answer. They come from the invisible source of all perfection, and through Nature we may approach to God. Let us, then, realise that *we* are but a part of the vast chain of being, and all are sharers in the common Life, sharers in possessing something from the Soul of the Universe, the precious gift of Him who giveth to all life, and breath, and all things, and whose tender mercies are over all His works.

REVISED VERSIONS OF THE BIBLE: WITH SPECIAL REFERENCE TO THE PRESENT REVISED VERSION, AND TO THE REVISED APOCRYPHA.

By REV. L. DE BEAUMONT KLEIN, D.Sc.

EVER since the days when the various books of our Bible came to be read and valued outside the countries where they were composed, or beyond the period when the original languages in which they were written could be generally understood, versions of the books have been made, and revised versions of them have in due time followed. Indeed there seems to be no finality in this matter: first, because of the inevitable difficulties of translation; secondly, because of the condition of the texts themselves. This will appear more clearly as we proceed with our endeavour to trace the steps by which our present Revised Version has been reached.

The most ancient version, if version it can be called, of the Old Testament, is the Samaritan Pentateuch. Strictly speaking, it is not a version at all, since it is written in the Hebrew tongue, though written in a different character from that of the extant Hebrew MSS. It is written in the old Hebrew character, not in the square characters adopted at a later period by the Jews.

It was an edition for the use of the Samaritans, probably of the only portion of the Old Testament which, at the time of the rebuilding of the Temple of Jerusalem, after the captivity, had come to be definitely recognised as

inspired Scripture by the Jews themselves. When the Prophets and Hagiographa were subsequently added to the Canon, the Samaritans declined to accept them.

There has been much heated controversy among Biblical Scholars as to the comparative value of the Samaritan and Hebrew texts. The great scholar Gesenius pronounced positively against the Samaritan Version, and for a time his opinion was held in great respect; but there is at the present day a disposition to pass a more favourable judgment upon the old document. This later view is strengthened by the fact that in many passages where the Samaritan Version differs from the Hebrew, the Greek Version, called the Septuagint, agrees with the Samaritan rather than with the Hebrew text.

No manuscript of the Samaritan Bible, as far as we know, is older than the 10th Century. The precious roll preserved at Nablous, is said to have been written by Abisha, the great grandson of Moses, in the thirteenth year after the conquest of Canaan, but this is, of course, too good to be true!

However, the importance of the Samaritan Version is much diminished when compared with that of the Septuagint, or Greek Version, of the whole of the Old Testament, together with our Apocrypha. In fact, going back as it does in the preserved MSS. to the fourth and fifth centuries, the Septuagint is by far the most important of ancient translations. Besides, it has been the Bible of Greek Christendom from the earliest days of Christianity down to the present day, and thus presents exceptional interest to the church historian no less than to the biblical scholar. The Septuagint Version was made in Egypt, where, Greek being the common instrument of intercourse between the various Eastern nationalities represented there, the Jews settled in the country came

soon to use Greek as their native tongue. Hence their need of a Greek version of their ancient Scriptures.

We will not allude here to the many marvellous stories connected with the production of this remarkable work. It is enough to know that it was begun in the reign of Ptolemy Philadelphus (B.C. 284–247) and at Alexandria; that the Pentateuch was probably translated first; and that the other books were added at a later date by different translators, as seems clearly indicated by the marked difference of style which characterizes the later books. Thus, the complete Septuagint Version contains, besides the books of the Old Testament as we have them, those books also known as the Apocrypha, some of which, such as 2 Esdras, the additions to Esther, Wisdom, part of Baruch, the Song of the Three Children, 2 Maccabees, never existed in Hebrew at all. The others, although written originally in Hebrew, never attained a position of full authority in the Canon of the Old Testament, and ended by being left outside it. Ceasing in consequence to be copied in Hebrew, those Apocryphal books have come down to us only in the Greek, or in translations made from the Greek.

When completed, the Septuagint became the Bible of the Greek-speaking Jews, and, as we know, most of the quotations from the Old Testament in the New are taken from the Septuagint, not from the original Hebrew.

Later on, the Christian church was naturally led to adopt the Septuagint, and looked upon it as its complete bible long before it could be realised that some of the Christian writings, in course of elaboration for at least a century after the day of Pentecost, were one day to take a place beside the books in the Septuagint equally as sacred Scripture.

The first result of this adoption of the Septuagint by

the Christians was that the Jews cast it off as untrustworthy; hence the origin of several rival versions which, of course, were all meant to be "revised" versions. First, a new translation from the now fixed Hebrew text, in the form in which it has come to us, was made by Aquila, a Jew said to have been a disciple of the renowned Rabbi Akiba. This version, extremely literal in its rendering of the text, and dating probably from about the year 150, soon became the official Greek translation of the Old Testament in use among those Jews who had not embraced Christianity. On the opposite side, Theodotion, a Christian, produced somewhat later a translation from the original Hebrew into Greek. His version, which is characterized by great freedom, was, of course, rejected by the Jews, but found universal acceptance among Christians.

It is deserving of notice that Theodotion's version of the book of Daniel (with the apocryphal additions) was so much more esteemed than the rendering of it in the Septuagint that it came to be substituted in the MSS. of the Septuagint itself for its version of that same book to such an extent that only in one instance has the original book of Daniel, as found in the Septuagint, come down to us.

Another Greek version of the Old Testament, made about A.D. 200, is that of Symmachus, of less importance as regards its influence upon the history of the Greek Bible, but yet very superior by its literary merits. Jerome, moreover, made frequent use of Symmachus's version in the preparation of the Vulgate.

But, notwithstanding those improved versions, the Septuagint still retained all its importance, and in the first half of the second century the great Alexandrian scholar, Origen, undertook a revised version of it, for the preparation of which he went through the gigantic work of the

Hexapla, or Six-fold Version of the Old Testament Scriptures.

In six parallel columns were ranged the following six versions :—(1) The current Hebrew text ; (2) The Hebrew text in Greek letters ; (3) The Greek translation of Aquila ; (4) The translation of Symmachus ; (5) The Septuagint as revised by Origen himself ; (6) The translation of Theodotion.

The original manuscript of this immense work still existed at Cæsarea in the seventh century, but it perished soon afterwards, and only the fifth column, representing Origen's own version of the Septuagint, has come down to us. The object which Origen had proposed to himself, namely, to produce a Greek version giving, as closely as possible, the sense of the received Hebrew text, has deprived his work of the great value it might otherwise have had for us who are mainly anxious to recover the original form of the Septuagint. However, his own object was not altogether defeated, for at the beginning of the third century a number of new editions of the Septuagint were brought out, and all were more or less affected by Origen's work.

After the fourth century no new version of the Septuagint took place, and in spite of inevitable corruptions, the old Greek version remains, as in the Greek Church, of daily use to the present time.

Our most important MS. of the Septuagint and one of the two oldest copies of the Greek Bible is the Codex Sinaiticus, discovered in the Monastery of St. Catherine, on Mount Sinai, in 1844, by Dr. Tischendorf. This famous MS., dating from the middle or end of the fourth century, assumes special importance when it is remembered that there is no copy of the Hebrew Bible, now extant, written earlier than the ninth century, while, as

we have already noticed, the earliest MS. of the Samaritan Pentateuch known to us dates only from the tenth century.

Both these versions, however, were made, as we have seen, before the introduction of Christianity, and there was little or no demand for a version of the Old Testament except among Jewish communities. But when the Gospel came to be preached outside Judea by the Apostles and their disciples, a demand for translations of the Hebrew Scriptures naturally arose among peoples who could not read them in the original. And such a want was first felt in the region beyond Jordan and Mesopotamia, where Syriac (practically the same language as Aramaic, which was spoken in Palestine in the days of Christ) is the common dialect. The one version, both of the Old and New Testament in Syriac, which is and always has been the standard version for the Syriac Churches, is known as the "Peshitto" Version, and dates probably from the second or third century after Christ, for in the fourth century it was frequently quoted as being of comparatively ancient authority.

The Peshitto Version was translated from the Hebrew, but, as it would seem, with the help of the Septuagint. It originally omitted the Apocrypha, following the fixed Jewish Canon of the Old Testament, but they were afterwards added at an early date. The whole version underwent revision afterwards by comparison with the Septuagint, rather a retrograde method of making a revised version.

If space permitted, we could add something respecting the versions in Coptic, Ethiopic, Armenian, Arabic, Georgian, Slavonic, all of great interest, especially to students of the Septuagint.

The Gothic version of Bishop Ulfilas is, at least historically, of particular interest, as it became the Bible of

those Germanic races which had adopted Christianity in its Arian form about the middle of the fourth century. Of this version, the oldest extant monument of Teutonic speech, some precious fragments still remain, notably the famous *Codex Argenteus*, supposed to have been written in the sixth century, and now in the library of the University of Upsala.

We now come to the Latin versions of the Old and New Testament. No such versions were at first needed, while Christianity was diffusing itself over the Roman world. At Rome, Greek was universally spoken, but in some of the provinces, such as Roman Africa for instance, the Greek language had never acquired the same position, and thus the need of a Latin version of the Scriptures first began to be felt by those provincial Christians. It cannot be positively asserted that the earliest Latin version of the Scriptures was made in the province of Africa, but there is much probability in that opinion. At any rate, the version known as "The Old Latin Version" has come to us in two forms, the *African* and the *European*; there is reason to suppose them to represent two independent translations, and of the European a revised version was made in Italy, or at any rate circulated there towards the end of the fourth century, to which the name of *Italic* came consequently to be given.

Considerable portions of the old Latin versions have come down to us, notably the Psalter, in a very slightly altered form, and many fragments and quotations by the Fathers, but their value and interest are of little account compared with the immense importance of the *Vulgate*, the monumental work of St. Jerome, and substantially the Bible of the Latin Church to this day.

Born in Pannonia, not far from the modern Trieste, in the year 346, Jerome, after giving much attention to

profane literature, finally devoted his splendid talents to biblical studies, being very much encouraged thereto by Pope Damasus.

At first his work of translation was mainly from the Greek text of the Septuagint, and the Greek Testament, into Latin. But subsequently Jerome produced an entirely new version of the Psalms from the original Hebrew, greatly superior to the two Psalters he had previously edited, merely founded upon the Septuagint and Origen's Hexaplar text. But in spite of its superior merits, this third version of the Psalms never came into general use in the Church. People were accustomed to the rhythm of the older versions, and forgot the Apostle's advice to sing not with the voice only but with the understanding also.

But the great work of Jerome was his translation of the Old Testament entirely from the original Hebrew, which occupied him fourteen years (390-404). His translation was at first vigorously attacked, mainly by people who were little qualified to do battle against such a scholar as Jerome. His answers to their unreasonable criticisms are always racy and to the point, even if they sometimes betray the irritability and sensitiveness which almost invariably accompany genius. But we may well excuse him. It must have been galling to one who had laboured so hard to give them the closest possible sense of the written Word to find them more anxious to preserve familiar phrases and harmonious renderings than to have the exact meaning of the sacred text.

But gradually the superiority of Jerome's work asserted itself, at least partially, and the Vulgate, as the great version is called, attained official recognition. It is not of uniform merit, for it does not represent Jerome's work throughout, nor even always Jerome's best work where the

work is his. For instance, the Psalter is his revision with reference to the text in Origen's Hexaplar, known as the Gallican Psalter; it is not his better translation of the Psalms direct from the Hebrew. The Apocryphal books Jerome would not translate, and, in fact, he wished to do away with them altogether, because they had no place in the Hebrew Bible. So the books remained entirely unrevised in the Vulgate, with the not very important exception of Judith and Tobit.

For the New Testament, Jerome's revision of the Old Latin version has been maintained. The Vulgate is therefore a composite version of the Bible, produced in a spirit of accommodation and compromise which is not the spirit of true scholarship. Various revisions of the Vulgate have been made, since the days of the Council of Trent, which have removed some of the most obvious errors in the text, but, of course, these revisions do not embody any of the results of modern scholarship.

Still, we cannot forget that the history of the Bible in Western Europe for a thousand years is mainly the history of the Vulgate at a time when Latin was the only organ of Western literature. Besides, to the English people, the Vulgate is invested with special importance from the fact that it has been the first foundation for all English translations, even before the days of Wycliffe.

We must now leave, however reluctantly, the many important and interesting versions of the Old and New Testament in the various languages of the East and West, and confine ourselves to the more immediately interesting subject, to us at least, of the English versions of the Bible.

To Aldhelm, Bishop of Sherborne, who died in 709, belongs the honour of having first produced an English translation of the Psalms; unfortunately we cannot tell how far his own work has come down to us, for the Anglo-

Saxon version of the Psalms (the first fifty in prose and the rest in verse) bearing Aldhelm's name appears to have undergone considerable alterations.

The Venerable Bede (674-735) was throughout his life busy with Biblical studies and translations of the Bible into the vernacular, but no vestige of his translations has reached us, and the same has unfortunately to be said of King Alfred's labours in the same field.

Passing over the partial translations of the Bible from the days of Alfred to the fourteenth century, we find that the old Anglo-Saxon version of the Gospels had become unintelligible to the people, and that in the absence of any new translation (except the Psalms), the Bible was only accessible (to those who knew not Latin) in rhyming paraphrases and stories of doubtful accuracy and value. And thus we are brought to the days of Wycliffe, who at last gave the English nation a complete Bible written in a language the people could understand.

Wycliffe's attitude towards the Roman Church inevitably led him into controversies which practically rendered necessary for his cause the existence of an English Bible through which he could bring his arguments before English public opinion.

And in order that the many, who could not even read his Bible, might nevertheless have a knowledge of it orally, he founded his order of "poor priests," whose duty it was to preach to the people in their own tongue, to read the Scriptures publicly, and, of course, to disseminate the theological ideas of Wycliffe; for however zealous men may be for the Scriptures themselves, they always come to insist in the end upon what they understand them to say. Wycliffe's New Testament was first finished in the year 1380, and two years later, when Wycliffe was Rector of Lutterworth, the whole Bible was published.

Of course, he was largely helped in his work by devoted scholars, such as Nicholas Hereford, who is credited with the translation of a large portion of the Old Testament.

This first version was not by any means free from imperfections of various kinds, and shortly after Wycliffe's death, which took place in 1384, a revised edition of his great version was undertaken, and completed in 1388. Thus was constituted the Wycliffite Bible, the first English Bible for the people. But it must not be forgotten that, after all, however faithful the translation of it might be, it was made, not from reliable Hebrew and Greek texts, but simply from the Vulgate, that is, from Jerome's version, in such state as editors and copyists had left it in the course of centuries. Many were the revised versions still required to transform the Wycliffite version into our latest Revised Version.

Wycliffe's Bible was only in manuscript, for it is not before the year 1454 that the first-known product of the printing press in Europe was issued—a momentous event in the history of the world. Besides, as we have already stated, Wycliffe's work had not been done from the original Hebrew and Greek. His version was in reality the Vulgate in an English dress. It is therefore William Tyndale who must be acknowledged as the true father of our English Bible. By his knowledge of the original languages, and his biblical studies, first at Oxford and later on at Cambridge, where Erasmus was then teaching, he was well qualified for the labour of translation. Finding no support for his undertaking in this country, he went in 1524 to Hamburg, and there completed his version of the New Testament in the following year, leaving soon after for Cologne in order to have it printed. But the work of printing, disturbed by the enemies of the Reformer, had to be completed at Worms, where the first

English New Testament, entirely translated from the original Greek, at last appeared in print.

As soon as the work reached England, in the beginning of 1526, it met with virulent attacks from the leaders of the Church. The book was solemnly burnt at St. Paul's Cross, and all efforts were made to prevent copies from entering the realm.

But all efforts proved vain. The English New Testament could not be suppressed, although it cannot be denied that, owing to the diligent destruction of all obtainable copies by the Church authorities, scarcely anything remains at the present day of the earliest editions.

Nor did Tyndale's labours cease with the appearance of his version of the New Testament. He soon began his translation of the Old Testament, while carefully revising his version of the New in subsequent editions. The end of this brave scholar is well known. Arrested in 1535 by the order of Charles V at Antwerp, where he then resided, Tyndale was imprisoned at Vilvorde, in Belgium, tried for heresy in October, 1536, and burnt at the stake. He endured his martyrdom with unflinching courage, and his last words, we are told, were: "Lord, open the King of England's eyes." It is consoling to know that so much labour and suffering had not been wasted, for his version had served at any rate to open the eyes of many of his English fellow-subjects. At the instigation of Cromwell, Miles Coverdale, an earnest man but scarcely a scholar, published his Bible in 1535, dedicating it, with permission, of course, to Henry VIII. His was therefore the first English Bible circulated in this country without official opposition. One of the characteristics of Coverdale's Bible is that it makes use of those ecclesiastical terms, such as "charity," "priest," "church," etc., which Tyndale had purposely avoided.

The demand for English Bibles now became greater every day. In 1539, Matthew's Bible, representing practically the completion of Tyndale's work, saw the light, and received official patronage from Cranmer, Cromwell, and Henry VIII himself. The "Great Bible," that is, a revision of Matthew's Bible by Coverdale, printed partly in Paris and partly in London, appeared in the spring of 1539, and was, by Cromwell's orders, set up in every church of the kingdom.

Taverner's translation soon followed, in the same year, but it was only once reprinted, and exercised little or no influence upon later revisions. The Great Bible, firmly established by authority, remained exclusively in the field. Another Version should here be mentioned, because of the marked influence it has exercised on the text of the Authorised Version. We mean the Geneva Bible, originally published in 1560, and again in 1576, with a further Revision of the New Testament.

Although never authorised for use in the churches, the Geneva Version (so called from the influences proceeding from the city of Calvin which brought about its publication) became extremely popular in England, owing to its superior correctness, its convenient quarto form, and the clear and moderate commentary which accompanied it.

This excellence of the Geneva Version tended inevitably to throw discredit on the Great Bible. The need of its revision came to be universally felt, and in 1563 this revision began, under the high editorship of Matthew Parker, Archbishop of Canterbury. As many of the revisers engaged in this great work were bishops, the name of the Bishops' Bible was given by the people to the revised bible which was published in 1568, and immediately replaced the Great Bible in all churches. It failed, however, to displace altogether the Geneva Bible

in the popular estimation. The work was uneven, and in many of its parts, particularly in the Old Testament portion, unsatisfactory.

Thus the failure of Parker's undertaking paved the way for the great achievement known to us as the "Authorised Version" in 1611. It is so familiar to us all; its excellence, especially as a literary performance, is so conspicuous, its marked influence upon some of the greatest masters of the English language so notorious, that we need not dwell longer upon that version, which stood, until the last few years, as the latest Revised Version of the English Bible.

However, in spite of its great merits, it could not permanently remain in the supreme position which it has now for so long occupied. For the last two hundred years partial amendments had been recommended by distinguished scholars, but no general movement had existed in the country for a new Version until the middle of the present century, when the discovery of new MSS., such as the *Codex Sinaiticus*, and the accumulation of new readings, caused among biblical students a universal sense of the necessity of a thorough revision of the Authorised Version in the light of modern scholarship.

As we have already said, the supreme reason for undertaking such a task was the great increase of our knowledge concerning original Greek and Hebrew texts, especially the former.

It must be borne in mind that none of the great Codices of the fourth and fifth century were known to the world in 1611, when the Authorised Version was published. The editions of the Greek text chiefly used by its translators were those of Erasmus, Stephanus, and Beza, and these rested mostly on MSS. of a very late period. In fact, the text (especially for the New Testament) on

which the translators had to rely was very far from perfect.

So in 1870 steps were at last taken to secure an authoritative revision of the whole English Bible. The appointed committee divided itself into two companies (of twenty-seven members originally), one for each Testament, and invitations were issued to all the leading Biblical scholars of the United Kingdom, whether members of the Church of England or not. The Churches of America were also invited and cordially responded to the invitation. The suggestions made by their representatives, when not adopted by their English colleagues, have been recorded in an appendix at the end of the Revised Version.

It was on the 22nd of June, 1870, that the members of the New Testament Company held their first meeting in the Jerusalem Chamber, Westminster. The Old Testament Company met eight days later.

The New Testament Revised Version was issued in 1881, and the entire Revised Bible (less the Apocrypha) in 1885.

We naturally ask : Has this latest of Revised Versions in the English language proved itself to be a worthy successor of the great Authorised Version ? Has it a real superiority over the Bible of 1611 ?

We have already given some reasons why the Revised Version should of necessity possess qualities which are inevitably wanting in the Authorised.

The New Version deals with an entirely new view of the texts. As regards the New Testament texts, Dr. Hort and Dr. Scrivener, the two most learned textual critics then alive, were engaged upon the work of revision, and when it is remembered that no change was finally accepted unless it had the support of two-thirds of the revisers present, it will be seen that the Greek text which

has served as a basis for the New Version has very strong claims in its favour.

The Greek text of the New Testament used in 1881 differs from that used in 1611 in no less than five thousand seven hundred and eighty eight readings, of which about one quarter are held to modify the subject-matter more or less seriously. In fact, few scholars would now be found to deny the superiority of the text of the Revised Version.

One striking example of this superiority will be found at 1 John v, 7. "There are three that bear record in heaven, the Father, the Word, and the Holy Ghost." All Greek MSS. written before the fifteenth century omit this passage; it is found for the first time in the writings of African Fathers of the fifth century, and is also possibly quoted by Cyprian; it is found in later copies of the Vulgate. The Revised Version had therefore no alternative but to omit the passage altogether.

As regards the Old Testament, much less change has occurred since 1611, for the simple reason that our wealth in better texts has scarcely increased. Practically, therefore, the same text as formally used had to be depended upon; hence the fewer alterations noticeable in the Old Testament portion of the Revised Bible, as compared with the vast number of alterations in the New Testament portion. We mean alterations as resting upon different *readings*, for considerable changes have been introduced in the rendering of the text itself owing to the great advance in our knowledge of the Hebrew tongue since 1611. The progress thus realised will be most manifest if one studies carefully the two versions in such books, for instance, as Job, Isaiah, and Ecclesiastes.

We must now say something of the Apocrypha, whose Revised Version has only recently been published (January, 1895.)

Their revision was not initiated by Convocation, but by the University presses, which commissioned a company, formed from the Old and New Testament companies, to undertake the work.

The available material for a revision is comparatively scanty; yet it was generally felt that there was room for considerable improvement on the previous version of 1611.

Three committees were formed in London, Westminster, and Cambridge. Of the noble band of workers, at least half the number has been taken away by death, but it may well be said of them that "they rest from their labours and their works follow with them."

The books themselves, it may be remarked, were, for various reasons, held in esteem by the early Christian Church, as is shown by the place which some of them occupy in the great Sinaitic and Vatican MSS. of the Greek Bible. At the same time, it is often difficult for us to trace in the Apocrypha all those characteristics which we are accustomed to associate with the idea of divine inspiration. Nor can we forget that the attitude of the Jews themselves towards such books, for instance, as Judith, Tobit, or Ecclesiasticus indicates the same feeling.

It has also been remarked that while there are many quotations in the New Testament from each group of books in the Old, there is not a single direct quotation from the Apocrypha, although those books were to be found in the Septuagint. The Peshitto omits the Apocrypha, and they were added to the Syriac Version only much later. As we already stated, the Septuagint certainly contains the Apocrypha; but some of them, such as 2 Esdras, the additions to Esther, Wisdom, part of Baruch, the Song of the Three Children, 2 Maccabees, seem never to have existed in Hebrew at all, and the

others, although certainly written in Hebrew, stood only on the footing of Hagiographa.

St. Jerome, a great authority on such questions, rejected the Apocrypha from his Latin Bible, because they were not extant in Hebrew, and only in later times did they come to be added to the Vulgate from older Latin translations. They remain, however, in the Bible of the Latin Church to this day.

That such books as the Apocrypha deserve to be studied is undoubted, and the new Revised Version of them will help powerfully to that end, owing to its very superior merits; but no amount of study will, we think, alter the view which was arrived at by scholars and divines at the time of the Reformation.

St. Augustine clearly defined the position of the Apocrypha when he said of them: "They are books which the Church, but not the Jews, holds canonical."

We have travelled a very long way: We have watched the constant effort, during so many centuries, to get nearer and nearer to the sense of the Divine Word by repeated Revised Versions. This has certainly been done in the spirit of Him who said: "Ye search the Scriptures because ye think that in them ye have Eternal Life" (John v, 39). And now we have reached the latest of Revised Versions, and we may, not unnaturally, ask ourselves in concluding this review, What is the destiny of this Version likely to be?

As we are all aware, it met at first, like so many of the Revised Versions of the past, with much unfavourable criticism. Many, who perhaps were not qualified for a more searching form of criticism, objected to the new forms of expression, which, they thought, robbed them of the musical charm of the Authorised Version, and destroyed its grace and stateliness.

But it must be remembered that the more learned critics who attacked so severely the work of the Companies did not, of course, belong to them. They were among those scholars who had been, of necessity, left out. This, given human nature as it is, may perhaps account for some of their unfriendly disposition towards the new Version.

Sentiment, however, is one thing, and love of truth is another. All the essential value of a translation lies, after all, in its faithfulness, and to ask for harmonious phrases where they often could be secured only at the expense of the meaning, is really neither serious nor scholarly.

Nor should we object to a translation because it makes, perhaps, less for some doctrinal views of our own than a previous translation. Again, truth, not our view of truth, should be our simple desire in this as in all other things. We believe that the Revised Version has a future. It has already found a place in the study of every conscientious biblical student; it will also, we believe, more and more find a place on the desk in our churches.

For although, in many cases, a lesson might be read indifferently in the Authorised or in the Revised Version without losing the sense of the original, yet in some passages, such is not the case; anyhow, the Christian people for whom the Scriptures have been translated ought to have an opportunity of hearing the most accurate rendering available in the language they understand, independently of the purely literary qualities of the version used.

Perhaps the form in which the Revised Version is at present printed is to be regretted. It is not so easily read publicly from the desk as the Authorised Version, owing to the absence of a certain space between verses in the majority of places. But this is only a material blemish which might be obviated in a future edition.

In conclusion we would say: Let us be thankful for any result of human labour which may have the effect of opening out more truth, and which enables us to attain more surely to an understanding of these venerable writings. For they remind us, as we study their contents, how truly "God has never left Himself without a witness," but at all times has stirred up the human conscience to the sense of a diviner life, and to a devout longing for a more intimate communion with God through the Spirit.

NOTE.—For the use of readers who may wish to examine some of the more important changes, especially in the New Testament, which have been sanctioned by the Revisers, we add the following references:—

The Scriptures.

John v, 39.
Acts xxiv, 14.
1 Cor. ii, 1.
Col. ii, 8.
2 Tim. iii, 16.
1 Peter iv, 11.

God: the Father.

Genesis iii, 5.
Psalm viii, 5.
Isaiah lix, 19.
Matt. xii, 31.
id. xxviii, 19.
id. xix, 17.
Rom. xv, 5, 6.
2 Cor. i, 3.

Eph. iii, 14, 15.

1 John v, 7.

James ii, 19.

Jude 25.

Rev. i, 6.

Jesus Christ.

Job xix, 25 (*see* Margin).

Psalm xxii, 16 *id.*

Isaiah lix, 20.

Haggai ii, 7.

Matt. xxiv, 36 (*cf.* Mk. xiii, 32).

Mark xvi, 9 (*see* Marginal Note).

Luke ii, 33, 43.

id. xxiii, 42.

John i, 15.

id. x, 14, 15.

Acts iii, 26.

id. v, 42.

Rom. ix, 5.

id. xiv, 10.

1 Cor. x, 9.

id. xv, 4, 20.

2 Cor. iv, 14.

id. xi, 31.

Gal. iii, 17.

Eph. iii, 9.

Phil. ii, 9, 11.

Col. ii, 2, 3.

1 Tim. iii, 16.

Heb. i, 3.

id. ii, 16.

1 John iii, 16

Redemption, Salvation.

Matt. xviii, 3.

Luke xxii, 32.

Acts ii, 47

Rom. iii, 25.

id. v, 11.

1 Cor. vi, 11 (*see* Marginal Note).

id. viii, 11.

2 Cor. v, 14, 15.

Gal. ii, 20.

id. v, 17.

Eph. iv, 32.

Phil. iii, 20, 21.

Heb. ix, 22.

id. x, 38 (*cf.* Habak. ii, 4).

1 Tim. vi, 19.

Tit. ii, 11.

James ii, 14.

The Future Life.

Job xxvi, 6.

Psalm ix, 17.

id. xvi, 9, 10.

id. lv, 15.

id. cxxxix, 8.

Prov. xv, 11.

John v, 29.

Rom. xiii, 2.

1 Cor. xi, 28, 29.

1 Tim. v, 12.

2 Tim. ii, 26 (*see* Marginal Note).

2 Peter ii, 3, 4.

Rev. ix, 1.

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